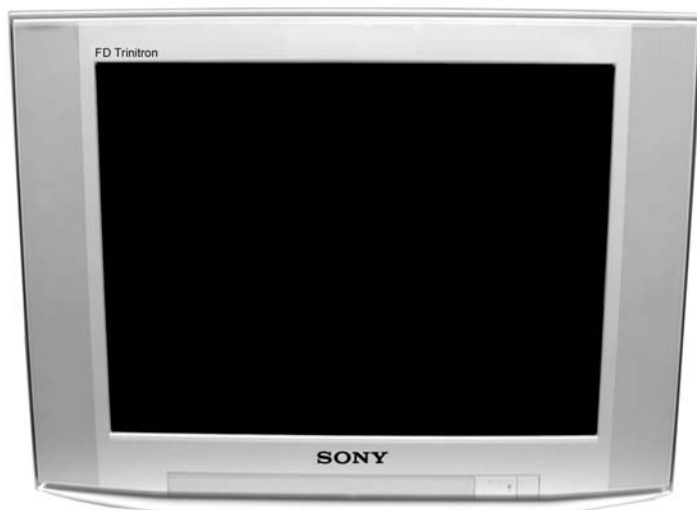


# SERVICE MANUAL

# DX-1A CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
<b>KV-32HS20</b>	RM-Y183	US	SCC-S47F-A
<b>KV-36HS20</b>	RM-Y183	US	SCC-S47E-A
<b>KV-36HS20H</b>	RM-Y183	HAWAII	SCC-S54C-A
<b>KV-32XBR450</b>	RM-Y184	US	SCC-S47D-A
<b>KV-32XBR450</b>	RM-Y184	CND	SCC-S48D-A
<b>KV-36XBR450</b>	RM-Y184	US	SCC-S47C-A
<b>KV-36XBR450</b>	RM-Y184	CND	SCC-S48C-A
<b>KV-36XBR450H</b>	RM-Y184	HAWAII	SCC-S54B-A



KV-32XBR450



RM-Y184

TRINITRON® COLOR TELEVISION

# SONY®

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## SPECIFICATIONS

	KV-32HS20 KV-32XBR450	KV-36HS20 KV-36HS20H KV-36XBR450 KV-36XBR450H
<b>Power Requirements</b>	120V, 60Hz	
<b>Number of Inputs/Outputs</b>		
Video <sup>1)</sup>	4	
S Video <sup>2)</sup>	3	
Y, PB, PR <sup>3)</sup>	2	
Audio <sup>4)</sup>	6	
Audio Out <sup>5)</sup>	2	
Monitor Out	1	
Control-S (in/out)	YES	
Speaker Output (W)	7.5W x 4	
<b>Power Consumption (W)</b>		
In Use (Max)	245W	
In Standby	2W	
<b>Dimensions (W x H x D)</b>		
mm	898 x 678 x 579.5 mm	994 x 754.5 x 622 mm
in	35 <sup>3/8</sup> x 26 <sup>3/4</sup> x 27 <sup>7/8</sup> in	39 <sup>9/64</sup> x 29 <sup>45/64</sup> x 24 <sup>1/2</sup> in
<b>Mass</b>		
kg	84 kg	108 kg
lbs	185 lbs.	238 lbs.

### Television system

American TV standard, NTSC

### Channel coverage

VHF: 2-13/ VHF: 14-69/ CATV: 1-125

### Picture tube

FD Trinitron<sup>®</sup> tube

### Visible screen size

32-inch picture measured diagonally (KV-32HS20/32XBR450 ONLY)  
36-inch picture measured diagonally (All Except KV-32HS20/32XBR450)

### Actual screen size

34-inch measured diagonally (KV-32HS20/32XBR450 ONLY)  
38-inch measured diagonally (All Except KV-32HS20/32XBR450)

### Antenna

75 ohm external terminal for VHF/UHF

### Supplied Accessories

Remote Commander RM-Y183 (KV-32HS20/36HS20/36HS20H ONLY)  
Remote Commander RM-Y184 (KV-32XBR450/36XBR450/36XBR450H ONLY)  
Two Size AA (R6) Batteries

### Optional Assessories

Connecting cables: RK-74A, VMC-810S/820/830HGS, VMC-720M,  
VMC-810S/820S, YC-15V/30V, YC-15/30HG, RKG69HG, RKC-515HG  
U/V mixer: EAC-66  
TV Stand: SU-32HS2 (KV-32HS20 ONLY)  
SU-36HS2 (KV-36HS20/36HS20H ONLY)  
SU-32XBR45 (KV-32XBR450 ONLY)  
SU-36XBR45 (KV-36XBR450/36XBR450H ONLY)

Design and specifications are subject to change without notice.

- 1) 1 Vp-p 75 ohms unbalanced, sync negative  
2) Y: 1 Vp-p 75 ohms unbalanced, sync negative  
C: 0.286 Vp-p (Burst signal), 75 ohms  
3) Y: 1.0 Vp-p, 75 ohms, sync negative;  
PB: 0.7 Vp-p, 75 ohms  
PR: Vp-p, 75 ohms  
4) 500 mVrms (100% modulation), Impedance: 47 kilohms  
5) More than 408 mVrms at the maximum volume setting (variable)  
More than 408 mVrms (fix)

**XBR**  
TruSurround™  
by SRS

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### ● SRS (SOUND RETRIEVAL SYSTEM)

The ● SRS (SOUND RETRIEVAL SYSTEM) is manufactured by Sony Corporation under license from SRS Labs, Inc. It is covered by U.S. Patent No. 4,748,669. Other U.S. and foreign patents pending.

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## WARNINGS AND CAUTIONS

### CAUTION


Short circuit the anode of the picture tube and the anode cap to the metal chassis, crt shield, or carbon painted on the crt, after removing the anode.

### WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the ac power line.



### SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and  mark on the schematic diagrams, exploded views, and in the parts list are critical for safe operation. Replace these components with sony parts whose part numbers appear as shown in this manual or in supplements published by sony. Circuit adjustments that are critical for safe operation are identified in this manual. Follow these procedures whenever critical components are replaced or improper operation is suspected.


### ATTENTION!!

Après avoir déconnecté le cap de l'anode, court-circuiter l'anode du tube cathodique et celui de l'anode du cap au châssis métallique de l'appareil, ou la couche de carbone peinte sur le tube cathodique ou au blindage du tube cathodique.

Afin d'éviter tout risque d'électrocution provenant d'un châssis sous tension, un transformateur d'isolement doit être utilisé lors de tout dépannage. Le châssis de ce récepteur est directement raccordé à l'alimentation du secteur.



### ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

Les composants identifiés par une trame et par une marque  sur les schémas de principe, les vues explosées et les listes de pièces sont d'une importance critique pour la sécurité du fonctionnement. Ne les remplacer que par des composants sony dont le numéro de pièce est indiqué dans le présent manuel ou dans des suppléments publiés par sony. Les réglages de circuit dont l'importance est critique pour la sécurité du fonctionnement sont identifiés dans le présent manuel. Suivre ces procédures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement suspecte.

## SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or touching high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

### Leakage Test

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

### How to Find a Good Earth Ground

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble-light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

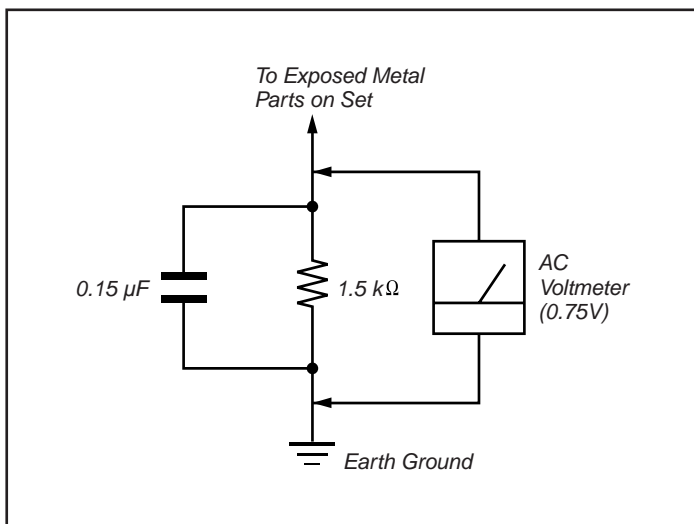


Figure A. Using an AC voltmeter to check AC leakage.

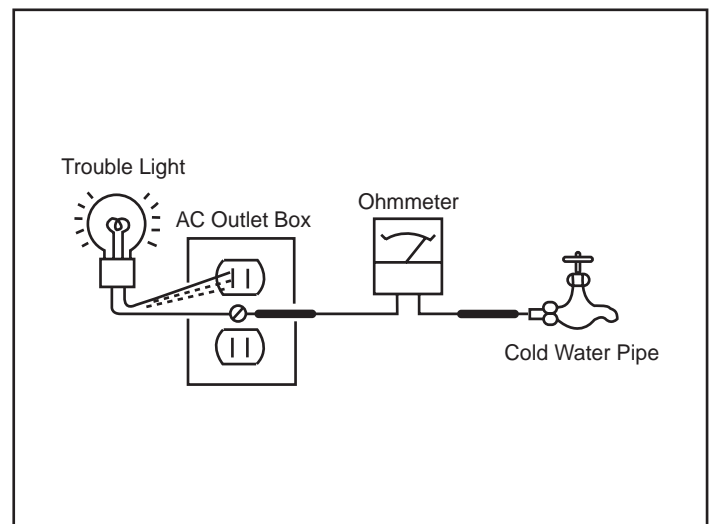


Figure B. Checking for earth ground.

## SELF-DIAGNOSTIC FUNCTION

*Self Diagnosis*  
Supported model

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/STEREO LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY/STEREO LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the Remote Commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

### Diagnostic Test Indicators

When an error occurs, the STANDBY/STEREO LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas.

Results for all of the following diagnostic items are displayed on screen. If the screen displays a "0", and error has occurred.

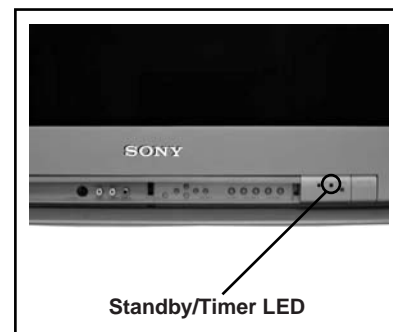
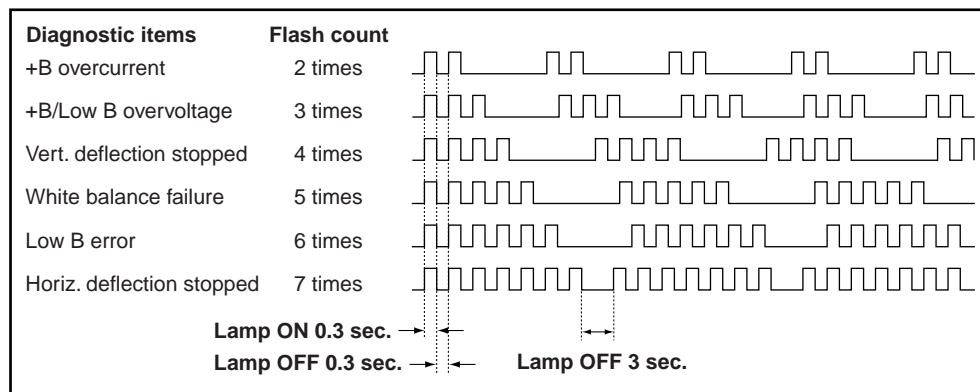
Diagnostic Item	No. of times STANDBY/STEREO lamp flashes	Display Result	Probable Cause Location	Detected Symptoms
Power does not turn on	Does not light		<ul style="list-style-type: none"> <li>Power cord is not plugged in.</li> <li>Fuse is burned out (F5501)</li> </ul>	<ul style="list-style-type: none"> <li>Power does not come on.</li> <li>No power is supplied to the TV.</li> <li>AC power supply is faulty.</li> </ul>
+B overcurrent (OCP) (see Note 1)	2 times	2:0 or 2:1	<ul style="list-style-type: none"> <li>H.OUT (Q5030) is shorted. (D Board)</li> <li>+B PWM (Q5003) is shorted (D Board)</li> <li>IC9001, IC9002, IC9003 is shorted (C Board)</li> </ul>	<ul style="list-style-type: none"> <li>Power does not come on.</li> <li>Load on power line is shorted.</li> </ul>
Low B overvoltage (OVP)	3 times	3:0 or 3:1	<ul style="list-style-type: none"> <li>IC6505 is faulty. (D Board)</li> </ul>	<ul style="list-style-type: none"> <li>Has entered standby mode.</li> </ul>
Vertical deflection stopped	4 times	4:0 or 4:1	<ul style="list-style-type: none"> <li><math>\pm 15V</math> is not supplied. (D Board)</li> <li>IC5004 is faulty. (D Board)</li> </ul>	<ul style="list-style-type: none"> <li>Has entered standby state after horizontal raster.</li> <li>Vertical deflection pulse is stopped.</li> <li>Power line is shorted or power supply is stopped.</li> </ul>
White balance failure (not balanced)	5 times	5:0 or 5:1	<ul style="list-style-type: none"> <li>Video OUT (IC9001-IC9003) is faulty. (C Board)</li> <li>CRT drive (IC201) is faulty. (A Board)</li> <li>G2 is improperly adjusted. (see Note 2)</li> </ul>	<ul style="list-style-type: none"> <li>No raster is generated.</li> <li>CRT cathode current detection reference pulse output is small.</li> </ul>
LOW B OCP/OVP (overcurrent/overvoltage) (see Note 3)	6 times	6:0 or 6:1	<ul style="list-style-type: none"> <li>+5 line is overloaded. (A, B Boards)</li> <li>+5 line is shorted. (A, B Boards)</li> <li>IC6007 is faulty. (A Board)</li> </ul>	<ul style="list-style-type: none"> <li>No picture</li> </ul>
Horizontal Deflection stopped	7 times	7:0 or 7:1		<ul style="list-style-type: none"> <li>No picture</li> </ul>

**Note 1:** If a +B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously. The symptom that is diagnosed first by the microcontroller is displayed on screen.

**Note 2:** Refer to Screen (G2) Adjustment in Section 3-4 of this manual.

**Note 3:** If STANDBY/STEREO LED flashes six (6) times, unplug the unit and wait 10 seconds before performing the adjustment

### Display of Standby/Timer LED Flash Count



\* One flash count is not used for self-diagnostic.

### Stopping the Standby/Timer LED Flash

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER LAMP from flashing.

### Self-Diagnostic Screen Display

For errors with symptoms such as "power sometimes shuts off" or "screen sometimes goes out" that cannot be confirmed, it is possible to bring up past occurrences of failure on the screen for confirmation.

### To Bring Up Screen Test

In standby mode, press buttons on the Remote Commander sequentially, in rapid succession, as shown below:

**DISPLAY** ➡ Channel **5** ➡ Sound volume **1** ➡ Power ON.

#### SELF DIAGNOSIS

2: +B OCP	N/A
3: +B OVP	N/A
4: VSTOP	0
5: AKB	1
101: WDT	24

Numeral "0" means that no fault was detected.

Numeral "1" means a fault was detected one time only.

### Handling of Self-Diagnostic Screen Display

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to "0".

Unless the result display is cleared to "0", the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

### Clearing the Result Display

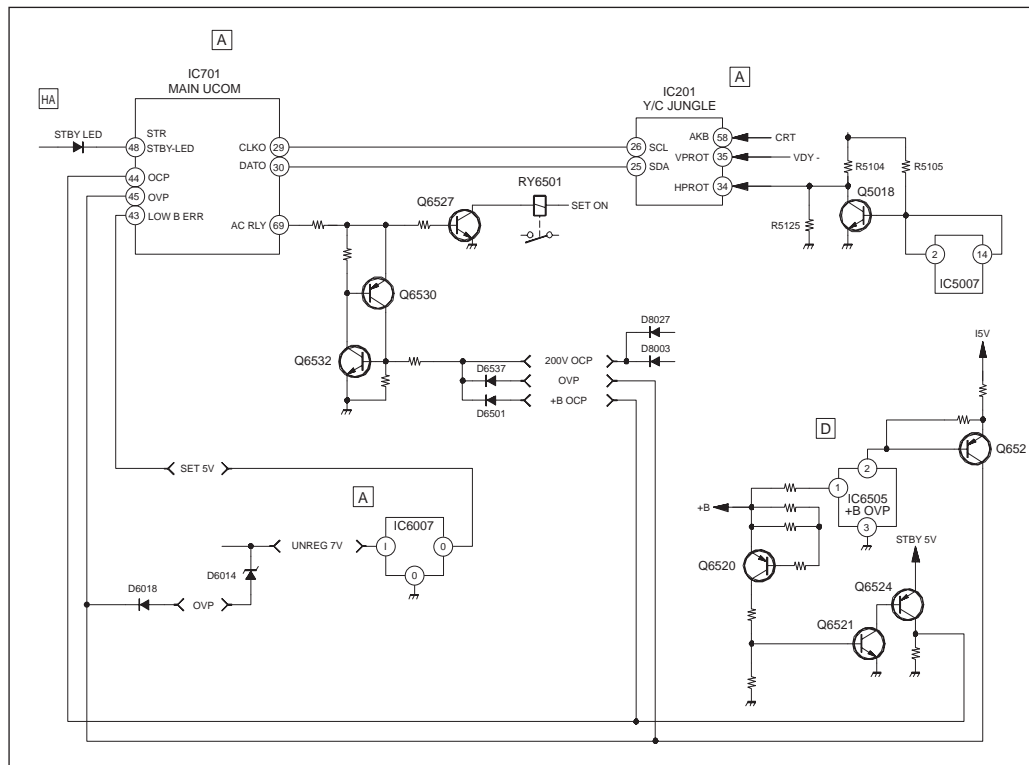
To clear the result display to "0", press buttons on the Remote Commander sequentially when the diagnostic screen is displayed, as shown below:

Channel **8** ➡ **ENTER**

### Quitting the Self-Diagnostic Screen

To quit the entire self-diagnostic screen, turn off the power switch on the Remote Commander or the main unit.

### Self-Diagnostic Circuit



#### +B overcurrent (OCP)

Occurs when an overcurrent (more than 6A) on the +B (135V) line is detected by R6598/R6591. It will cause Q6520 to turn on and force the AC relay to turn off through Q6532 and Q6530.

#### +B overvoltage (OVP)

Occurs when 1) overvoltage (more than +140V) on the +B (135V) line is detected by IC6505, or 2) an overvoltage (more than 7.5 V) on the unreg 7V line is detected by D6014. The AC relay will turn off through Q6532 and Q6530.

#### Vertical Deflection Stopped

Occurs when an absence of the vertical deflection pulse is detected by IC201. Power supply will shut down when waveform interval exceeds 2 seconds.

### White Balance Failure

If the RGB levels\* do not balance within 2 seconds after the power is turned on, this error will be detected by IC201. TV will stay on, but there will be no picture.

\*(Refers to the RGB levels of the AKB detection Ref pulse that detects 1K).

### Low B Error

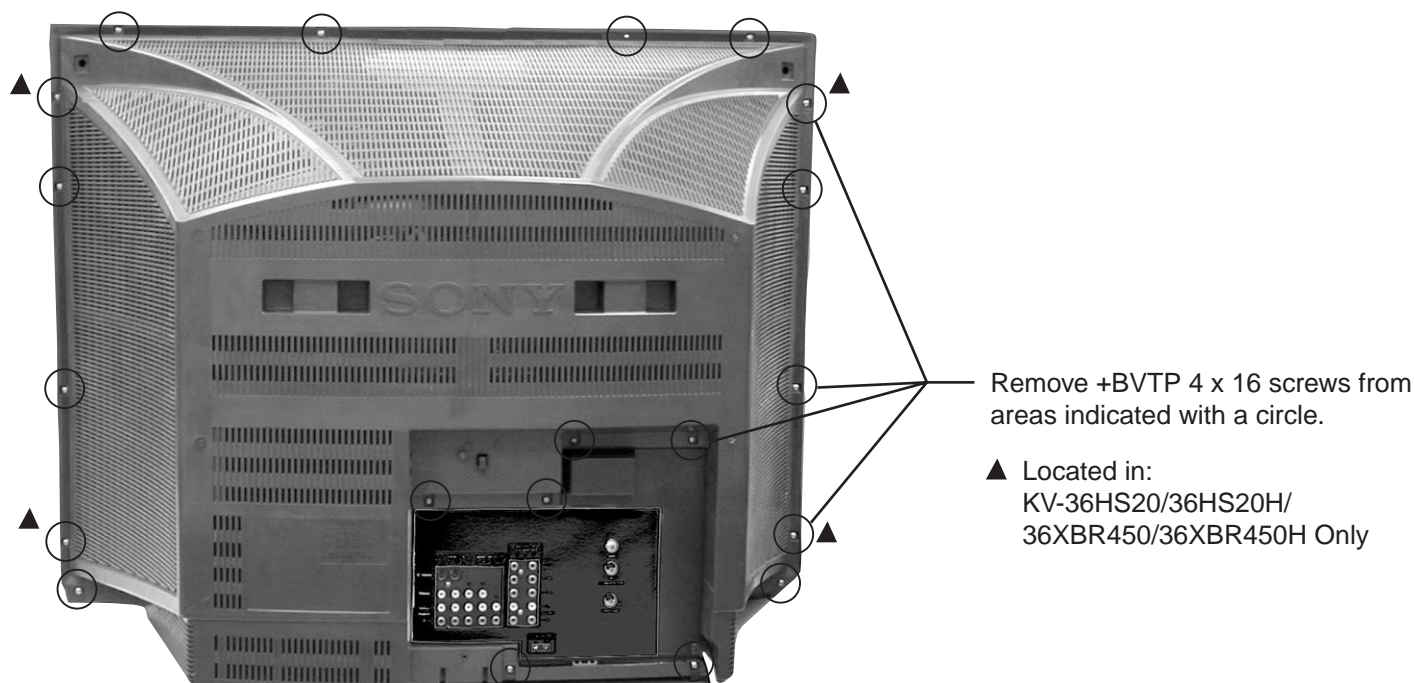
Occurs when set 5V is out.

### Horizontal Deflection Stopped

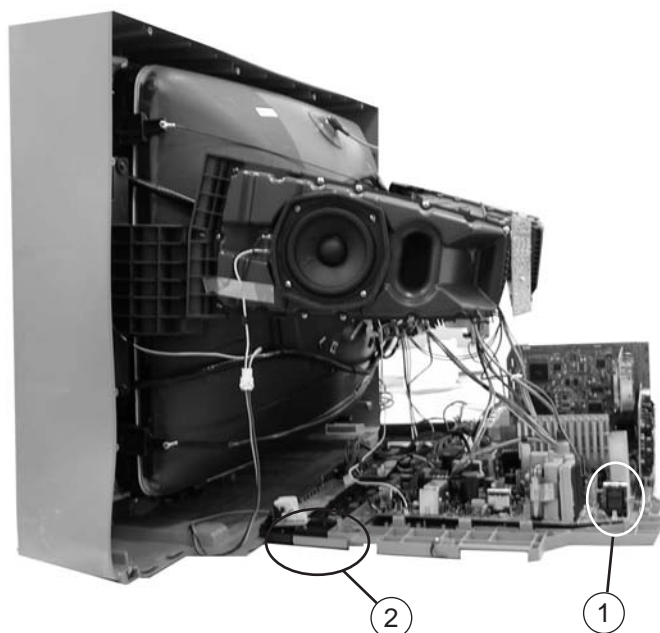
Occurs when either: 1) a +B overcurrent is detected (IC5007), or 2) overheating is detected (Thermistor TH5002).

## SECTION 1: DISASSEMBLY

### 1-1. REAR COVER REMOVAL



### 1-2. CHASSIS ASSEMBLY REMOVAL



- ① **CAUTION!** - Heat sink on IC5004 is -15V. Care must be taken not to allow heat sink to touch any other components.
- ② Lift lever up on the right and left sides of the chassis bracket and gently pull the chassis assembly away from the bezel.

### 1-3. SERVICE POSITION

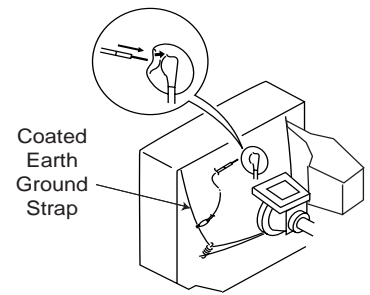


- ① Pull up and rotate both the A and D boards in order to service the unit.

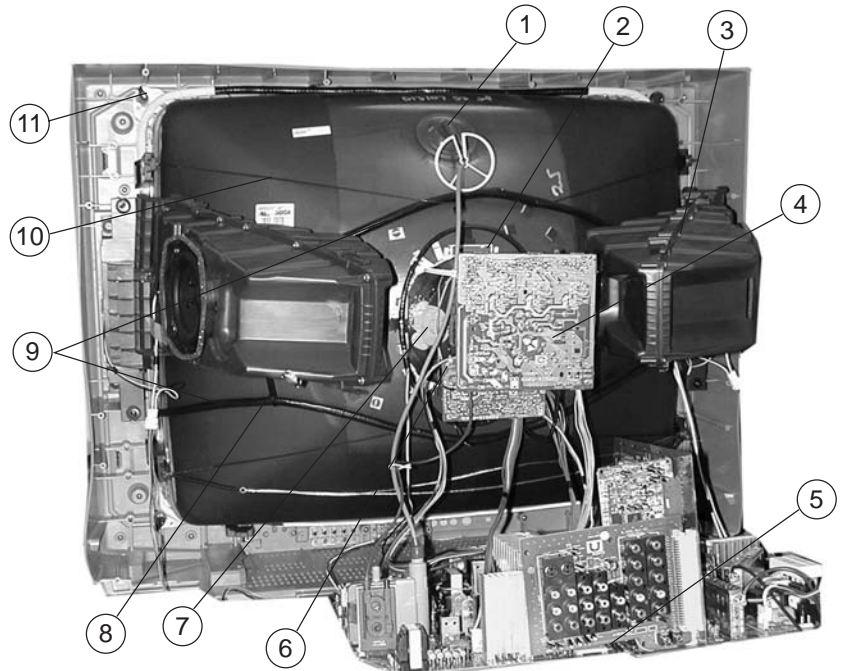
## 1-4. PICTURE TUBE REMOVAL

### WARNING: BEFORE REMOVING THE ANODE CAP

High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.



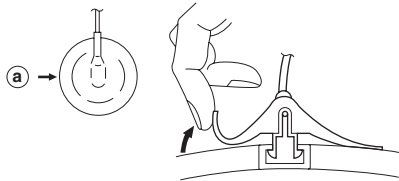
- ① Discharge the anode of the CRT and remove the anode cap.
- ② Unplug all interconnecting leads from the deflection yoke, neck assembly, degaussing coils and CRT grounding strap.
- ③ Remove the Speaker Assemblies.
- ④ Remove the C Board from the CRT.
- ⑤ Remove the chassis assembly.
- ⑥ Loosen the neck assembly fixing screw and remove.
- ⑦ Loosen the deflection yoke fixing screw and remove.
- ⑧ Place the set with the CRT face down on a cushion and remove the degaussing coil holders.
- ⑨ Remove the degaussing coils.
- ⑩ Remove the CRT grounding strap and spring tension devices.
- ⑪ Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT [Take care not to handle the CRT by the neck].



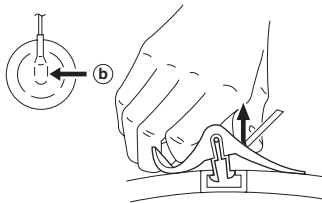
## ANODE CAP REMOVAL PROCEDURE

WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. After removing the anode cap, short circuit to either the metal chassis, CRT shield, or carbon painted on the CRT.

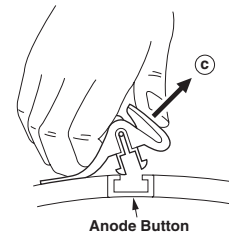
### REMOVAL PROCEDURES



Turn up one side of the rubber cap in the direction indicated by arrow ①.



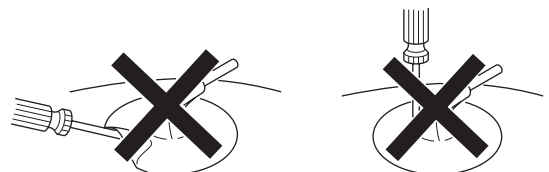
Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ②.



When one side of the rubber cap separates from the anode button, the anode cap can be removed by turning the rubber cap and pulling it in the direction of arrow ③.

### HOW TO HANDLE AN ANODE CAP

1. Do not use sharp objects which may cause damage to the surface of the anode cap.
2. To avoid damaging the anode cap, do not squeeze the rubber covering too hard. A material fitting called a shatter-hook terminal is built into the rubber.
3. Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.



## SECTION 2: SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

These adjustments should be performed with rated power supply voltage unless otherwise noted.

The controls and switch should be set as follows unless otherwise noted:

VIDEO MODE: STANDARD (RESET)

**Perform the adjustments in order as follows:**

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G2)
5. White Balance

**Test Equipment Required:**

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital Multimeter

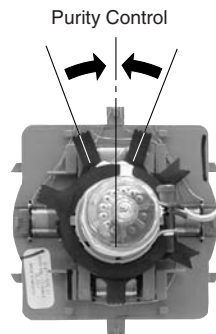
### 2-1. BEAM LANDING

#### Preparation:

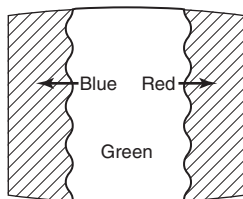
- Input a white pattern signal.
- Face the picture tube in an East or West direction to reduce the influence of geomagnetism.

**NOTE: Do not use the hand degausser; it magnetizes the CRT .**

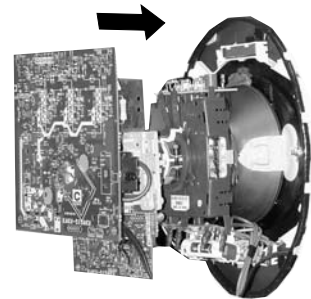
1. Input white pattern from pattern generator. Set the PICTURE control to maximum, and the BRIGHTNESS control to standard.
2. Perform Focus, G2 and White Balance adjustments.
3. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:



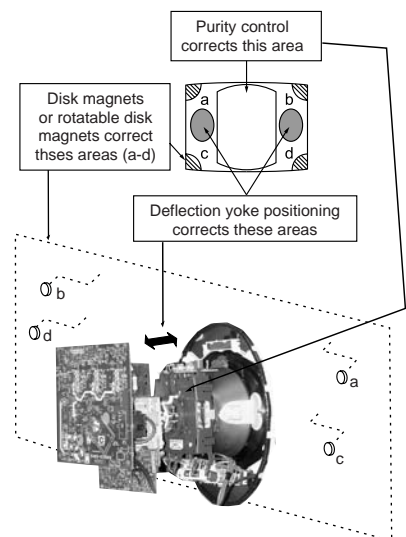
4. Input a green pattern from the pattern generator.
5. Move the deflection yoke backwards, and adjust with the purity control so that green is in the center and red and blue are even on both sides.



6. Move the deflection yoke forward, and adjust so that the entire screen becomes green.



7. Switch over the raster signal to red and blue and confirm the condition.
8. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
9. If landing at the corner is not right, adjust it by using the disk magnets.



## 2-2. V-PIN AND V-CEN ADJUSTMENT

### Preparation:

- Input a cross hatch pattern signal.
- Face the picture tube in a North/South direction and correct rotation.
- Set Video Mode to: Standard (Reset)

1. Adjust service mode CXA2150D-1 04 VCEN so that the top pin and bottom pin are symmetrical from top to bottom.
2. Adjust service mode CXA2150D-1 05 VPIN so that the top pin and bottom pin are symmetrical from top to bottom.
3. Lines should be straight from left to right. Check landing for side effect.

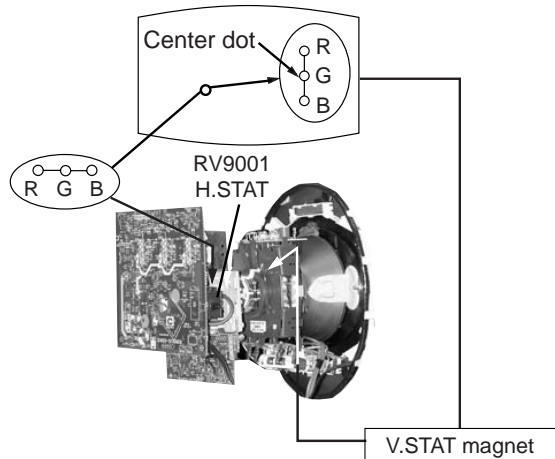
## 2-3. CONVERGENCE

### Preparation:

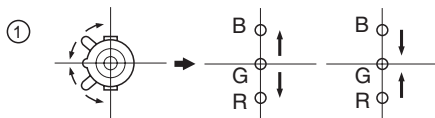
- Set the CONTRAST and BRIGHTNESS control to 50%
- Input dot pattern signal.

### 2-3.1. VERTICAL AND HORIZONTAL STATIC CONVERGENCE

1. Disconnect the dynamic convergence before adjusting static convergence (CN5510), except for minor touch-up.
2. Adjust H.STAT convergence, RV9001, to converge red, green, and blue dots in the center of the screen.
3. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen.



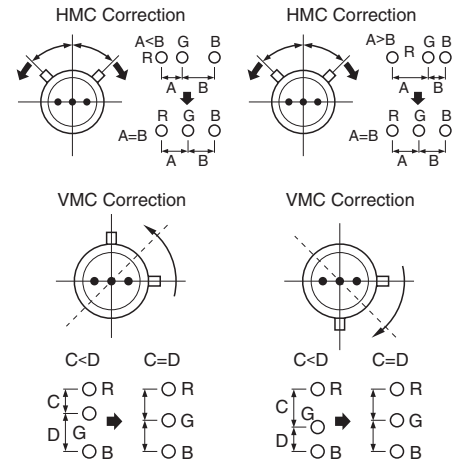
4. Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



### 2-3.2. OPERATION OF BMC (HEXAPOLE) MAGNET

The respective dot positions resulting from moving each magnet interact. So, perform the following adjustments while tracking.

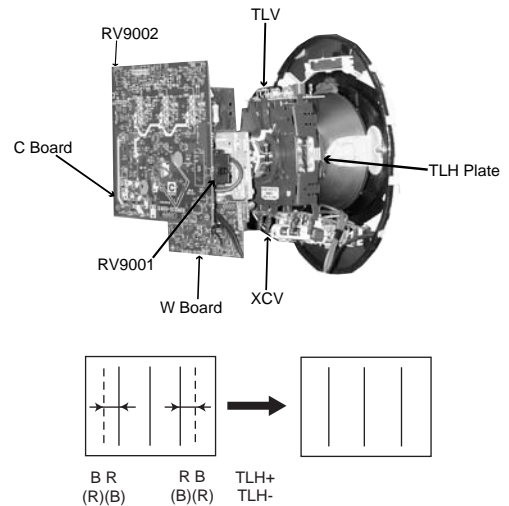
1. Use the V.STAT tabs to adjust the red, green and blue dots so that they line up at the center of the screen (move the dots in a horizontal direction).



### 2-3.3. TLH PLATE ADJUSTMENT

#### Preparation:

- Input a cross hatch pattern signal.
- Adjust unbalanced horizontal convergence of red and blue dots by adjusting the TLH plate on the deflection yoke.



1. Adjust XCV core to balance X axis.
2. Adjust the vertical red and blue convergence with V.TILT (TLV VR).

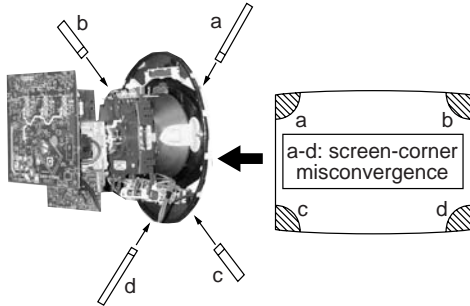
**Note:** Perform adjustments while tracking item 1.

## 2-3.4. SCREEN-CORNER CONVERGENCE

### Preparation:

- Input a cross hatch pattern signal.

- Affix a permalloy assembly corresponding to the misconverged areas:



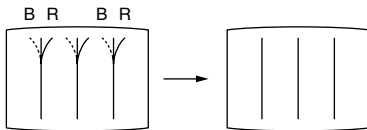
## 2-3.5. DYNAMIC CONVERGENCE ADJUSTMENTS

Set dynamic convergence using the following service mode adjustment data:

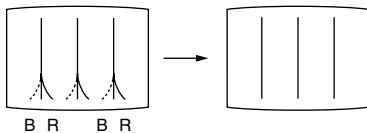
### CXA 8070 AP

NO.	Register	Function	Data Length	Initial Data
1	YBWU	VCA9	0-63	31
2	YBWL	VCA10	0-63	31
3	RSAP	DC-AMP1	0-63	31
4	RUBW	VCA5	0-63	31
5	RLBW	VCA6	0-63	31
6	LSAP	DC-AMP2	0-63	31
7	LUBW	VCA10	0-63	31
8	LLBW	VCA2	0-63	31

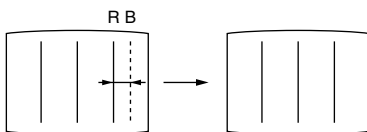
- YBWU (Upper Y-BOW)



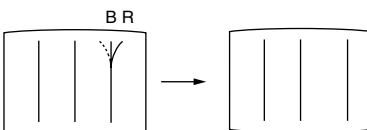
- YBWL (Bottom BOW)



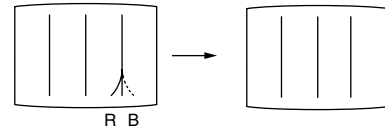
- RSAP (Right AMP)



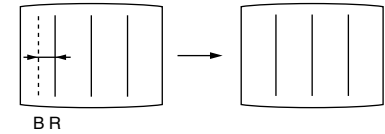
- RUBW (Right Side Upper C-BOW)



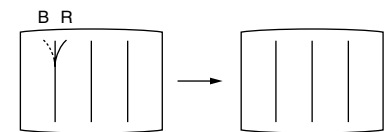
- RLBW (Right Side Bottom C-BOW)



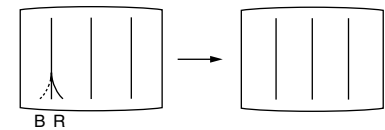
- LSAP (Left AMP)



- LUBW (Left Side Upper C-BOW)



- LLBW (Left Side Bottom C-BOW)



## 2-4. FOCUS ADJUSTMENT

- Input monoscope signal.
- Set video mode to STANDARD.
- Adjust focus VR counter-clockwise to confirm that the dot's shape is centered.
- Confirm center focus with focus VR.



## 2-5. SCREEN (G2)

- Input a monoscope pattern (NTSC)
- Set to service mode and adjust as follows:

### CXA 2150P-2

NO.	Disp.	Item	Avg.
0	ALBK	ALL_BLK	0

- Adjust RV9002 on the C Board so that the voltage on red, green and blue cathodes is 170.0 0.5 V DC.
- Adjust the horizontal line at the top of the screen so it is cut off.

**Note:** Never set ALBK to 1 when external power supply is connected to cathode.

## 2-6. PICTURE QUALITY ADJUSTMENTS

### Preparation:

- Set PRO MODE (Picture: MAX, GAMMA: 0)
- Dynamic-color: Off (=Trinitron: MID).
- Set the service mode to the following:

#### C2150P-4

NO.	Name	Control Function	Avg. Data
06	UDCL	Dynamic Color: OFF	0
08	UGRAM	GRAMMA	0
15	DCTR	DC-TRAN	0
16	DPIC	DYNAMIC PIC: OFF	0

- Input signal (480i):
  - Color Bar Video 75IRE (White) 75% modulation 7.5% Set-up
  - Color Bar RF 75IRE (White) 75% modulation 7.5% Set-up

### 2-6.1. VIDEO INPUT - TWO PICTURE SUB CONTRAST ADJUSTMENT

#### Preparation:

- Input a Color Bar signal to VIDEO 1 (75 IRE 75%).
- Set picture mode: P&P (PRO MODE).

- Set to service mode and adjust as follows:

#### 2150P-4

NO.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	0

#### 2150P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	4

## INITIAL DATA (IMPORTANT)

#### 2150P-4

NO.	Name	Control Function	Avg. Data
23	SCON	SUB-CONT	9

#### 2103-1

NO.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

#### 2103-2

NO.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

- Connect oscilloscope to Pin 1 of CN9001 (R.DRV) on the C Board
- Adjust MAIN (left) side contrast according to service mode fro SCON.

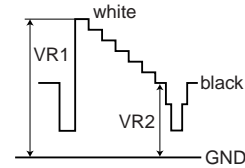
#### 2103-1

NO.	Name	Control Function
02	SCON	SUB-CONT

- Adjust SUB (right) side contrast according to service mode for SCON.

#### 2103-2

NO.	Name	Control Function
02	SCON	SUB-CONT



32": VR1-VR2 =  $\Delta VR = 1.92 \pm 0.05$  Vp-p

36": VR1-VR2 =  $\Delta VR = 2.00 \pm 0.05$  Vp-p

- Write data from steps 3 and 4 above, into memory.

### 2-6.2. VIDEO INPUT - SUB HUE/SUB COLOR ADJUSTMENT

#### Preparation:

- Input a Color Bar signal to VIDEO 1 (75 IRE 75%).
- Set picture mode: P&P (PRO MODE).

- Set to service mode and adjust as follows:

#### 2150P-4

NO.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	31

#### 2150P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	7

- Connect an oscilloscope to pin 5 of CN9001 (B. DRV) on the C Board.
- Adjust MAIN (left) side color according to service mode for SCOL.
- Adjust MAIN (left) side color according to service mode for SHUE.

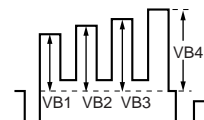
#### 2103-1

NO.	Name	Control Function
03	SCOL	SUB-COL
04	SHUE	SUB-HUE

- Adjust SUB (right) side color according to service mode for SCOL.
- Adjust SUB (right) side color according to service mode for SHUE.

#### 2103-2

NO.	Name	Control Function
03	SCOL	SUB-COL
04	SHUE	SUB-HUE



COLOR: VB1  $\leq$  VB4 (=VB1 + 0~90 MV)

HUE: VB2  $\leq$  VB3 (=VB2 + 0~90 MV)

(HUE: Adjust data - 2 STEP)

- Write data into memory.

## 2-6.3. RF INPUT - TWO PICTURE SUB CONTRAST ADJUSTMENT

### Preparation:

- Input a Color Bar signal to RF (75 IRE 75%).
- Set picture mode: P&P (PRO MODE).

1. Set to service mode and adjust as follows:

#### 2150P-4

NO.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	0

#### 2150P-2

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	4

## INITIAL DATA (IMPORTANT)

#### 2150P-4

NO.	Name	Control Function	Avg. Data
23	SCON	SUB-CONT	9

#### 2103-1

NO.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

#### 2103-2

NO.	Name	Control Function	Avg. Data
00	YLEV	Y-OUT	23

**Note:** Use the same average data as 2-6.1, items 3 and 4 after the adjustment

2. Connect an oscilloscope to pin 1 of CN9001 (R. DRV) on the C Board.
3. Adjust MAIN (left) side contrast according to service mode fro SCON.

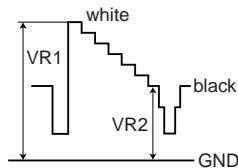
#### 2103-1

NO.	Name	Control Function
02	SCON	SUB-CONT

4. Adjust SUB (right) side contrast according to service mode for SCON.

#### 2103-2

NO.	Name	Control Function
02	SCON	SUB-CONT



$$32": VR1-VR2 = \Delta VR = 1.92 \pm 0.05 \text{ Vp-p}$$

$$36": VR1-VR2 = \Delta VR = 2.00 \pm 0.05 \text{ Vp-p}$$

5. Write data from steps 3 and 4 above, into memory.

## 2-6.4. RF INPUT - SUB HUE/SUB COLOR ADJUSTMENT

### Preparation:

- Input a Color Bar signal to RF (75 IRE 75%).
- Set picture mode: P&P (PRO MODE).

1. Set to service mode and adjust as follows:

#### 2150P-4

NO.	Name	Control Function	Avg. Data
00	UPIC	PICTURE	63
02	UCOL	COLOR	31

#### 2150P-4

NO.	Name	Control Function	Avg. Data
01	RGBS	R ON	7

## INITIAL DATA (IMPORTANT)

#### 2150P-4

NO.	Name	Control Function	Avg. Data
24	CLOF	OFFSET for UCOL	8
25	HUOF	OFFSET for UHUE	4

#### 2103-1

NO.	Name	Control Function	Avg. Data
01	CLEV	CB & CR-OUT	17
20	CBOF	CB-OFFSET	31
21	CROF	CR-OFFSET	31

#### 2103-2

NO.	Name	Control Function	Avg. Data
01	CLEV	CB & CR-OUT	17
20	CBOF	CB-OFFSET	31
21	CROF	CR-OFFSET	31

**Note:** Use the same average data as 2-6.2, items 3-6 after the adjustment.

2. Connect an oscilloscope to pin 5 of CN9001 (B. DRV) on the C Board.
3. Adjust MAIN (left) side color according to service mode for SCOL.
4. Adjust MAIN (left) side color according to service mode for SHUE.

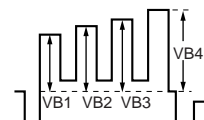
#### 2103-1

NO.	Name	Control Function
03	SCOL	SUB COLOR
04	SHUE	SUB HUE

5. Adjust SUB (right) side color according to service mode for SCOL.
6. Adjust SUB (right) side color according to service mode for SHUE.

#### 2103-2

NO.	Name	Control Function
03	SCOL	SUB COLOR
04	SHUE	SUB HUE



COLOR:  $VB1 \leq VB4$  ( $=VB1 + 0 \sim 90$  MV)

HUE:  $VB2 \leq VB3$  ( $=VB2 + 0 \sim 90$  MV)

(HUE: Adjust data - 2 STEP)

7. Write data into memory.

## 2-7. WHITE BALANCE (CRT) AND SUB BRIGHT ADJUSTMENT

### Preparation

- Input an all white 480i (15.734 KHz) signal into the VIDEO 1 input terminal to perform the white balance (highlight, cut-off) adjustments. The parameters to adjust are in the CXA2150P in service mode.

1. Set the following:

Picture: Full Mode

Pro Mode

Color: Center

2. Adjust white balance in the service mode and set the following data:

### 2150P-1

NO.	Name	Control Function	Avg. Data
05	RDRV	R-DRIVE	Fix: 41
06	GDRV	G-DRIVE	Adjust
07	BDRV	B-DRIVE	Adjust
08	RCUT	R-CUT OFF	Fix: 41
09	GCUT	G-CUT OFF	Adjust
10	BCUT	B-CUT OFF	Adjust

3. Adjust sub brightness: Input an all black signal (to IRE 7.5% set up) 480i (15.75 KHz) signal into the VIDEO 1 input terminal and adjust the following parameter of CXA2150P-1:

### CXA2150P-1

NO.	Name	Control Function	Avg. Data
04	SBRT	SUB-BRIGHT	Adjust

## INITIAL DATA (IMPORTANT)

### 2150P-1

NO.	Name	Control Function	Avg. Data
00	SBOT	SUB-BRT OFFSET	7
12	SBOF	SUB-BRT OFFSET	63

4. Repeat steps 2-3.

## 2-8. RASTER CENTER ADJUSTMENT

### Preparation:

- Input a monoscope signal.
- Set to NTSC (DRC) mode.

1. Set to service mode and adjust as follows:

### CXA2150P-2

NO.	Name	Control Function	Avg. Data
06	AGNG	AGING 1, AGING 2	2

### CXA2150P-2

NO.	Name	Control Function	Avg. Data
02	HSIZ	Horiz Size	31

### CXA2150P-3

NO.	Name	Control Function	Avg. Data
00	HBLK	Blanking Enable	0

- Reduce HSIZ to see sides of raster.
- Adjust H-Center with CXA2150D-2 00.
- Adjust to the best screen position with H-CENT and write data.
- Resotore aging, HSIZ and HBLK to original condition.

## 2-9. PICTURE DISTORTION ADJUSTMENTS

### 2-9.1. NTSC (DRC) FULL MODE ADJUSTMENT

- Face the picture tube in an east-west direction.
- Complete VPIN and VCEN adjustments first (A2150-D1 05 VPIN, A2150-D1 04 VCEN)
- Input a monoscope and crosshatch signal. Adjust the picture distortion with the following service parameters to balance the best condition for these two signals.

A2150-D1	00	VPOS
A2150-D1	01	VSIZ
A2150-D1	02	VLIN
A2150-D1	03	VSCO
A2150-D1	04	SCEN
A2150-D1	05	VPIN
A2150-D1	06	HTPZ

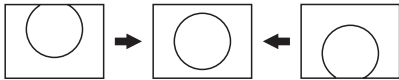
A2150-D2	01	HPOS
A2150-D2	02	HSIZ
A2150-D2	03	SLIN
A2150-D2	04	PIN
A2150-D2	05	UCP
A2150-D2	06	LCP
A2150-D2	07	PPHA
A2150-D2	08	VANG
A2150-D2	09	LANG
A2150-D2	10	VBOW
A2150-D2	11	LBOW

**Note:** Make sure that the picture size is within specs. Vertical size is 11.8 sq. and horizontal size is 15.8 sq.

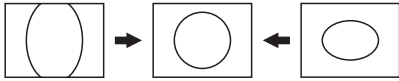
4. Write data into memory and then set the screen to 1080i mode.

**CXA2150D-1**

## 0. VPOS (V-POSITION)



## 1. VSIZ (V-SIZE)



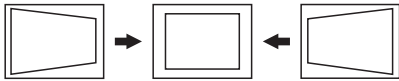
## 2. VLIN (V-LINE)



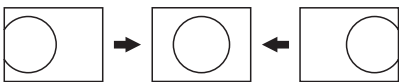
## 3. VSCO (VS-COR)



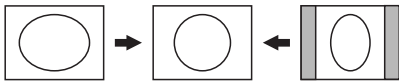
## 7. HTPZ (H-TRAPEZOID)

**CXA2150D-2**

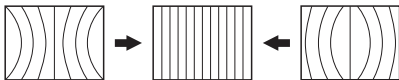
## 1. HPOS (H-POSITION)



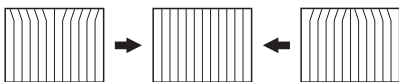
## 2. HSIZ (H-SIZE)



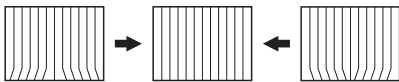
## 5. PIN (PIN AMP)



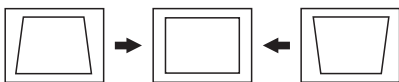
## 6. UCP (UP COR PIN COR)



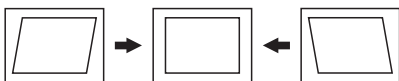
## 7. LCP (LOW CO PIN COR)



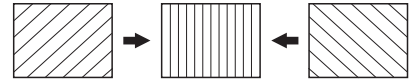
## 13. PPHA (PIN PHASE)



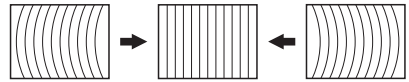
## 14. VANG (AFC-ANGLE)



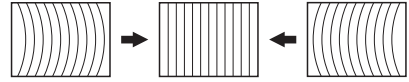
## 15. LANG (L-ANGLE)



## 16. VBOW (AFC-BOW)



## 17. LBOW (L-BOW)

**2-9.2. 1080i HD MODE ADJUSTMENT**

1. Input a 1080i cross-hatch signal and an HD monoscope signal that contains overscan markers.
2. Adjust the raster position per section 3-8, only if this procedure was not performed for full mode.
3. Adjust the geometry similar to Fill DRC mode. Vertical size is 11.8 sq. and horizontal size is 15.8 sq., if monoscope signal is available. Otherwise, set the vertical size to 91.5% scan and horizontal size as 90% scan.
4. Use the following register to adjust the horizontal parameter:

A2150-D2	01	HPOS
----------	----	------

**Note:** If necessary, touch up the geometry using the data register listed above for Full mode.

5. Write the data into memory.

**2-9.3. VERTICAL COMPRESSES MODE CHECK AND CONFIRMATION**

1. Input a monoscope and crosshatch signal.
2. Check vertical compressed mode.

## SECTION 3: SAFETY RELATED ADJUSTMENTS

### 3-1. RV8001, RV8002 CONFIRMATION METHOD AND HV SERVICE ADJUSTMENTS

#### 3-2. B+ MAX CONFIRMATION

Standard..... 135.3  $\pm$  1 VCD

Check Condition:

AC input voltage: ..... 120 ( $\pm$  2) VAC at Board Adjustment Process  
 ..... 130 ( $\pm$  2) VAC at QC  
 ... 120 ( $\pm$  2) VAC at Overall Adjustment (after aging)

**Note:** If using a stabilized power supply, make sure that the distortion factor is 3% or less.

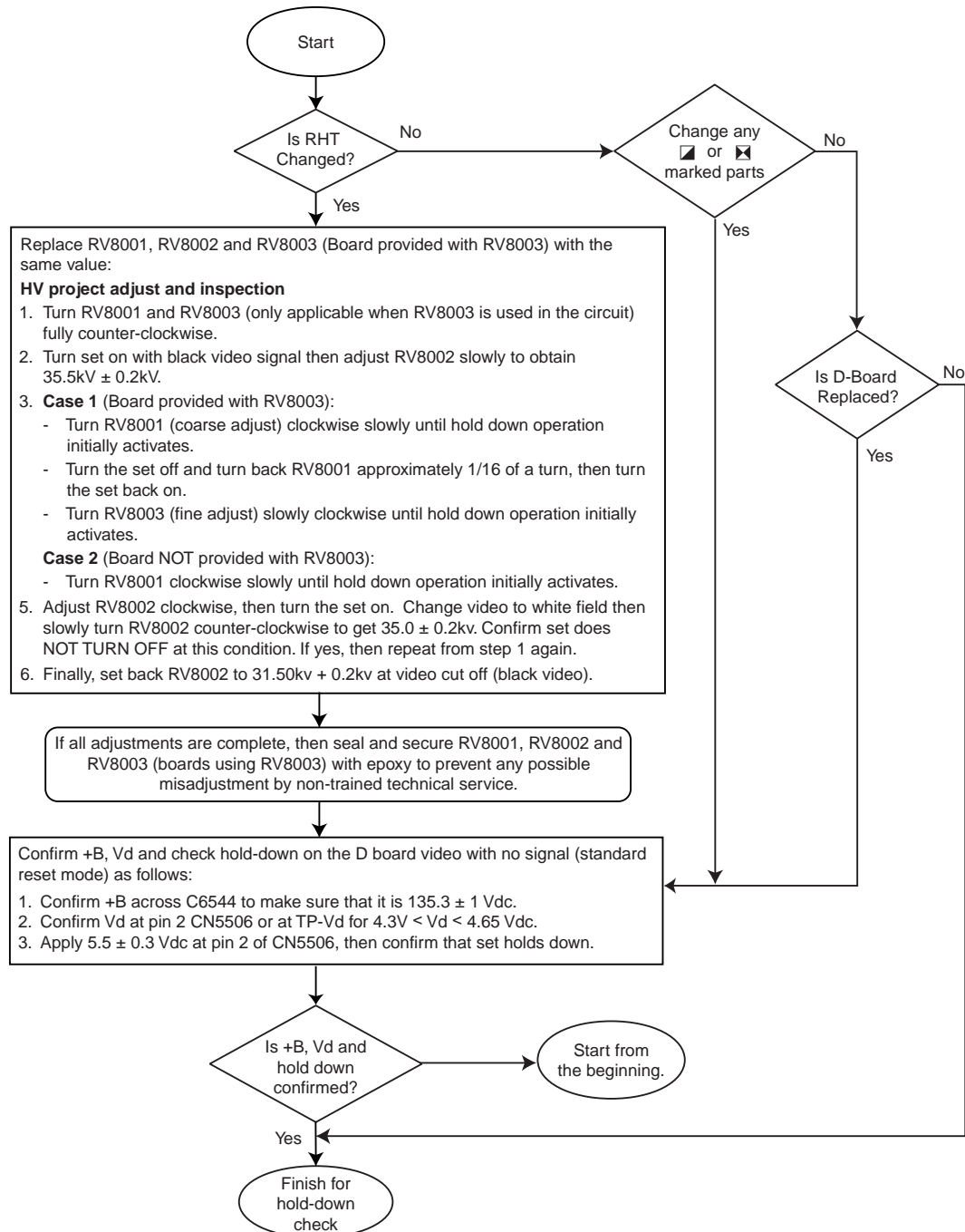
Setting mode: ..... Full mode

Signal input: ..... Cross-hatch of NTSC at QC

Initial setting: ..... Reset condition at QC

Confirm point: ..... Across C6544 for B+ of D Board

#### 3-3. HV SERVICE FLOWCHART



## SECTION 4: CIRCUIT ADJUSTMENTS

### ELECTRICAL ADJUSTMENTS BY REMOTE COMMANDER

Use the Remote Commander (RM-Y183, RM-Y184) to perform the circuit adjustments in this section.

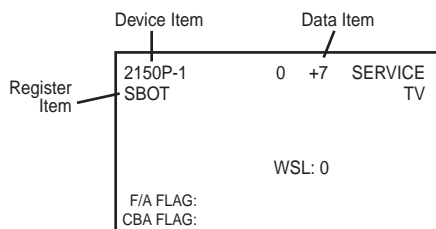
**Test Equipment Required:** 1. Pattern generator 2. Frequency counter 3. Digital multimeter 4. Audio oscillator

#### 4-1. SETTING THE SERVICE ADJUSTMENT MODE

1. Standby mode (Power off).
2. Press the following buttons on the remote commander within one second of each other:

**[DISPLAY]** → Channel **[5]** → Sound Volume **[+]** → Power

#### SERVICE ADJUSTMENT MODE VIEW



#### READING THE MEMORY

1. Enter into service mode.
2. Press **[0]** on the remote commander.
3. Press **[ENTER]** to read memory.

#### ADJUSTING THE PICTURE

1. Enter into service mode
2. Press **[2]** or **[5]** on the remote to select the device item.
3. Press **[1]** or **[4]** on the remote to select an item.
4. Press **[3]** or **[6]** on the remote to change the data.
5. Press **[MUTING]** then **[ENTER]** to write into memory.

##### 4-1.1 RESETTING THE DATA

**Note:** Be careful when using the remote! It will clear and re-initialize ALL NVM data including deflection adjustment data if not reset properly as follows:

#### RESETTING THE DEFLECTION NVM DATA

1. Enter into service mode.
2. Press **[7]**, then **[MENU]**, and then press **[ENTER]** on the remote.

#### RESETTING THE SYSTEM NVM DATA

1. Enter into service mode.
2. Press **[7]**, then **[9]**, and then press **[ENTER]** on the remote.

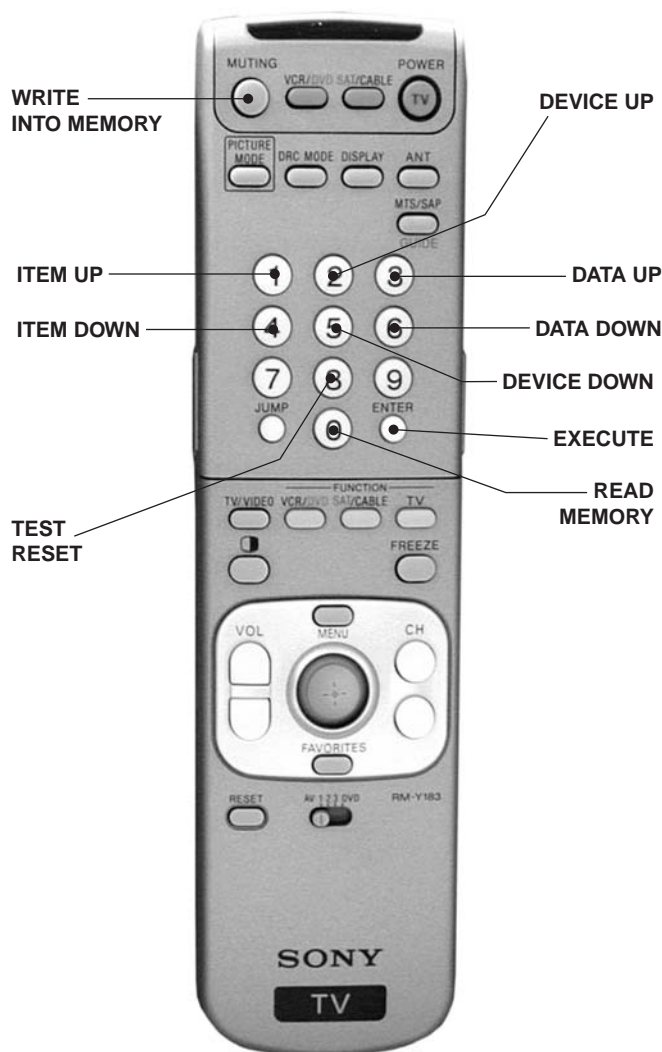
#### RESETTING THE SYSTEM NVM DATA

1. Enter into service mode.
2. Press **[8]** and then press **[ENTER]** on the remote.

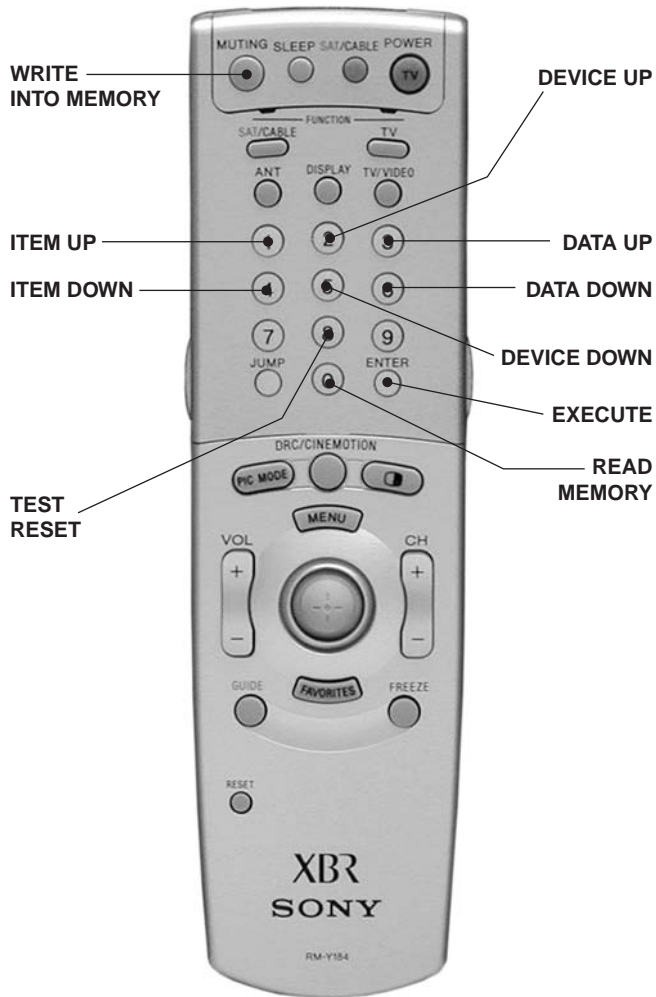
#### 4-2. MEMORY WRITE CONFIRMATION METHOD

1. After adjustment, pull out the plug from the AC outlet, then replace the plug in the AC outlet again.
2. Turn the power switch ON and set to Service Mode.
3. Call the adjusted items again to confirm they were adjusted.

#### 4-3. REMOTE ADJUSTMENT BUTTONS AND INDICATORS



**RM-Y183**  
(KV-32HS20/36HS20/36HS20H ONLY)



**RM-Y184**  
(KV-32XBR450/36XBR450/36XBR450H ONLY)

## SERVICE DATA LISTS

DX1A-2001* Service List ----- Contents & Notes					
Category Number & Name		Device Name	Device Reference Number	Slave Address	Comment
# 1	3D-COMB	mPD64082	IC3501 / BC-board	B8h (W) & B9h (R)	W&R: Write & Read
# 2-1	CXA2103-1 (Main)	CXA2103Q	IC3048 (Main) / B-board	9Ah	
# 2-2	CXA2103-2 (Sub)		IC3110 (Sub) / B-board	9Eh	
# 3-1	CXA2150P-1	CXA2150AQ	IC201 / A-board	86h	
# 3-2	CXA2150P-2				
# 3-3	CXA2150P-3				
# 3-4	CXA2150P-4				
# 4-1	CXA2150D-1	CXA2150AQ	IC201 / A-board	86h	
# 4-2	CXA2150D-2				
# 4-3	CXA2150D-3				
# 5	CXA2151	CXA2151Q	IC3001 / B-board	84h	
# 6	D-CONV	CXA8070P	IC5513 / D-board	DEh	
# 7	CXA2026	CXA2026AS	IC5511 / D-board	8Eh	
# 8	AP	BH3868AFS	IC7001 / A-board	82h	
# 9	TRUS	NJM2180M	IC4101 / S-board	2Eh	Controlled through CXA1315M ( IC4103 / S-board / 48h )
# 10	MID1	CXD9509AQ	IC3408 / B-board	2Eh	Controlled through MID-XA Micro ( IC3090 / B-board / 64h )
# 11	MID2	CXD9509AQ	IC3408 / B-board	2Eh	Controlled through MID-XA Micro ( IC3090 / B-board / 64h )
# 12	MID3	CXD9509AQ	IC3408 / B-board	2Eh	Controlled through MID-XA Micro ( IC3090 / B-board / 64h )
# 13	MID5	CXD9509AQ	IC3408 / B-board	2Eh	Controlled through MID-XA Micro ( IC3090 / B-board / 64h )
# 14	OSD	M306V2ME-153FP	IC701 / A-board	60h	DX1A-2001 System Micro {V1.0}
# 15	SNNR	mPD64082	IC3501 / BC-board	B8h (W) & B9h (R)	
		CXA2103Q	IC3048 (Main) / B-board	9Ah	
		CXA2150Q	IC201 / A-board	86h	
# 16	ID1	CXD2085M	IC3603 / B-board	40h	
# 17	CCD&VCHIP	CXP85840A-039Q	IC3602 (Main) / B-board	68h (Main)	CCD&Vchip Micro (V2.14)
			IC3601 (Sub) / B-board	6Ch (Sub)	
# 18	OP	M306V2ME-153FP	IC701 / A-board	60h	DX1A-2001 System Micro {V1.0}
# 19	ID	M306V2ME-153FP	IC701 / A-board	60h	DX1A-2001 System Micro {V1.0}
DX1A-2001 System Micro & Notes for Services		M306V2ME-153FP (MASK), Software Version 1.0, IC701/A-board (Slave Address: 60h) The system micro name, software&patch versions, and the status of NVM devices are displayed only when in the service category			
DX1A-2001 MID-XA Micro		MB94918RPF-G-137-BND (MASK), Software Version 12/08/00, IC3090/B-board (Slave Address: 64h)			
DX1A-2001 CCD&Vchip Micros		CXP85840A-039Q (MASK), Software Version 2.14, IC3602/B-board (Main/Slave Address: 68h) & IC3601/B-board (Sub/Slave Address: 6			
Note: * This service list is used for DX1A-2001 ONLY. Some service data is the same in DX1A-2001 & 2000, as noted in the data sheets.					

DX1A-2001&2000 SERVICE LIST (#1): 3D-COMB / mPD64082 (Part-1/4)									
Device Name: mPD64082GF { 3D-Comb Filter / NEC } / IC3501 (BC-board) / P/N: 8-759-594-44 (SB#: V7372)									
Slave Address: B8h (Write Address) / B9h (Read Address)									
Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Comment
					UHF/VHF & CVideo		SVideo		CVideo (CV): CVideo1~4 inputs SVideo (SV): SVideo1~3 inputs  C: Common data
					Standard	Non-standard	Standard	Non-standard	
0	NRMD	Operation mode setting		0~3	0	1	3	3	
1	YAPS	Y-output correction (V-aperture compensation & Y-peaking filtering)	C	0~3	3				
2	CLKS	System clock setting	C	0~3	1				
					UHF/VHF & CVideo		SVideo		
					Standard	Non-standard	Standard	Non-standard	
3	NSDS	Selection for standard/non-satndard signal processing		0~3	0	0	0	0	
4	MSS	Selection for inter-frame/inter-line processing	C	0~3	0				
5	KILS	Killer processing selection	C	0~3	1				
6	CDL	C-signal phase with respect to the Y-signal (Fine adjustment at 70 ns/step)	C	0~7	3				
	NRMD Setting-based Control Table for DYCO, DYGA, DCCO, DCGA				NRMD = 0	NRMD = 1	NRMD = 2	NRMD = 3	
7	DYCO	DY detection coring level (Y motion detection coring)		0~15	2	2	2	2	
8	DYGA	DY detection gain (Y motion detection gain)		0~15	10	10	10	10	
9	DCCO	DC detection coring level (C motion detection coring)		0~15	5	5	5	5	
10	DCGA	DC detection gain (C motion detection gain)		0~15	5	5	5	5	
11	YNRL	Frame recersive YNR nonlinear filter limit level	C	0~3	1				
12	CNRL	Frame recersive CNR nonlinear filter limit level	C	0~3	1				
					UHF/VHF	Video1~4	Video5&6	Video1~4: CVideo1~4 & SVideo1~3 inputs Video5&6: YPbPr-480i/480p/1080i inputs	
13	VTRH	Hysteresis for Hsync non-standard signal detection (out-of-Hsync intra-field)		0~3	1	1	1		
14	VTRR	Sensitivity for Hsync non-standard signal detection (out-of-Hsync intra-field)		0~3	1	1	1		
15	LDSR	Sensitivity for frame non-standard signal detection (out-of-Hsync inter-frame)		0~3	2	2	2		
	VM&SNNR Setting-based Control Table for VAPG & VAPI VAPG= VAPG1 - VAPG2				VAPG1 Data Based on MENU/VM Setting				This setting continues to the next page.
					VM = Off	VM = Low	VM = Mid	VM = High	
16	VAPG	V-aperture compensation gain		0~7	0	2	3	4	
17	VAPI	V-aperture compensation convergence point		0~31	4	4	4	4 (32V) or 8 (36V) {Initial/CBA Data = 8}	
	SNNR Setting-based Control Table for YPFT & YHFG				SNNR Setting (-Offset)				
					SNNR = 0	SNNR = 1	SNNR = 2	SNNR = 3	
18	YPFT	Y peaking filter (BPF) center frequency		0~3	0	0	0	0	0
19	YPFG	Y peaking filter (BPF) gain		0~15	7	0	1	2	3
Note: The same 3D-COMB service data is used for DX1A-2001&2000.									

DX1A-2001&2000 SERVICE LIST (#1): 3D-COMB / mPD64082 (Part-2/4)					
Register No & Name	Data Initial/Average Setting (32V&36V CRTs)			Comment	
	VAPG2 Data Based on SNNR/Offset-setting				
	SNNR = 0	SNNR = 1	SNNR = 2	SNNR = 3	
#16 VAPG (cont)	0	0	0	0	
Note: The same 3D-COMB service data is used for DX1A-2001&2000.					

## DX1A-2001&amp;2000 SERVICE LIST (#1): 3D-COMB / mPD64082 (Part-3/4)

Register No. & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Comment
	SNNR Setting-based Control Table for YHCO & YHCG			SNNR = 0	SNNR = 1	SNNR = 2	SNNR = 3	(Not SNNR Offset Data)
20	YHCO Y output high frequency component coring		0~3	1	1	1	1	YHCO&YHCG settings are sent directly to 3D-Comb device.
21	YHCG Y output high frequency component coring gain		0, 1	0	0	0	0	
22	HSSL Hsync slice level	C	0~15	12	C: Common data			
23	VSSL Vsync slice level	C	0~15	8				
24	ADCL ADC clock delay	C	0~3	3				
	NRMD Setting-based Control Table for D2GA			NRMD = 0	NRMD = 1	NRMD = 2	NRMD = 3	
25	D2GA Moving detection gain		0~7	4	4	4	4	
26	KILR Killer detection reference	C	0~15	3				
27	OP1 Option1: Selection of comb filter & recursive noise reduction types	C	0, 1	1				
				UHF/VHF	CVideo1	SVideo1	This setting continues to the next page.	
28	NR1 Noise reduction on/off		0, 1	0	0	1		
29	NR2 SNNR control on/off	C	0, 1	0				
30	WSL Noise level detection data		0~255	1 Byte Data from Read Register WSL				
31	HPLL H-PLL filter (Must be set to 1 when MN signal is input.)	C	0, 1	1				
32	BPLL Burst PLL filter	C	0, 1	1				
33	FSCF Burst extraction gain	C	0, 1	0				
34	PLLF PLL loop gain	C	0, 1	1				
				UHF/VHF	Video1~4	Video5&6	Video1~4: CVideo1~4 & SVideo1~3 inputs Video5&6: YPbPr-480i/480p/1080i inputs	
35	CC3N Selection of a line-comb filter C separation filter characteristic		0, 1	0	0	0		
36	HDP Fine adjustment of the system H-phase	C	0~7	5				
37	BGPS Internal burst gate start position {Gate Start Position from Hsync center = 0.25 x BGPS + 2}	C	0~15	4				
38	BGPW Internal burst gate width {Gate Width = 0.25 x BGPW + 0.5 (ms)}	C	0~15	10				
39	TEST Test bit {0: Normal mode, 1: Test mode (forbidden setting)}	C	0, 1	0				
40	WSC Amount of noise detection coring	C	0~3	1				
				UHF/VHF & Video1~4		Video5&6	This setting is used for non-standard signals such as Play Station signals.	
41	LIND DRC-M line-doubling setting for non-standard signals	Micro	0~63	0		2		
42	PFGO (YPFG offset at GR on) --- Not used for DX1A	---	0~7	3	(Not used for DX1A)			

Note: The same 3D-COMB service data is used for DX1A-2001&amp;2000.

## DX1A-2001&amp;2000 SERVICE LIST (#1): 3D-COMB / mPD64082 (Part-4/4)

Register No & Name	Data Initial/Average Setting (32V&36V CRTs)				Comment
	CVideo2	SVideo2	CVideo3	SVideo3	
#28 NR1 (cont.)	0	1	0	1	
Note: The same 3D-COMB service data is used for DX1A-2001&2000.					

DX1A-2001&2000 SERVICE LIST (#2-1): CXA2103-1 {Main}													
Device Name: CXA2103Q { NTSC-YCT (Chroma Decoder) / SONY } / IC3048 (B-board) / P/N: 8-752-089-50 (SBorSD#: NA)													
Slave Address: 9Ah { Main }													
Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial Setting & [Average Data] (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Note
					UHF/VHF & Video		YPbPr-480i		Video: CVideo1~4 & SVideo1~3 Inputs P&P-Left (M)-1080i&480i: If P&P-Left is 1080i/480p signal, the signal from the main chroma decoder is sent to MID/VDO input. *: Settings not used				
					P&P-Left (M)-DRC	P&P-Left (M)-1080i	P&P-Left (M)-DRC	P&P-Left (M)-480i					
0	YLEV	Y-Out gain		0~63	23	27*	28	31*					
1	CLEV	Cb&Cr-Out gains		0~63	17	55*	32	31*	Adj.: Adjusted data [Adj.-2steps]: The adjusted data - 2 steps				
					UHF/VHF		Video						
2	SCON	Sub contrast	Adj.	0~15	7	[7]	7	[7]					
3	SCOL	Sub color	Adj.	0~15	7	[7]	7	[7]	SNNR=0 SNNR=1 SNNR=2 SNNR=3 (-offset) (-offset) (-offset) (-offset) 0 1 2 3				
4	SHUE	Sub hue	Adj.	0~15	7	[Adj.-2steps]	7	[Adj.-2steps]					
5	YDLY	Y/C delay time		0~3	0		0						
		SNNR Data-related Settings			UHF/VHF	CVideo	SVideo	YPbPr 480i	CVideo: CVideo1~4 Inputs SVideo: SVideo1~3 Inputs				
6	SHAP	Sharpness		0~15	6	4	4	4					
7	SHF0	Sharpness f0 selector		0~3	0	0	0	0					
8	PREO	Sharpness pre/over-shoot ratio		0~3	3	0	0	0					
9	BPF0	Chroma band filter f0 setting		0~3	3	0	0	0					
10	BPFQ	Chroma band filter Q setting		0~3	0	3	3	3					
11	BPSW	Chroma band filter on/off		0, 1	1	0	0	0					
12	TRAP	Y bolck chroma trap filter on/off		0, 1	0	0	0	0	*: Settings not used (31): The center setting = 31				
13	LPF	YPbPr-Output LPF on/off		0, 1	0	0	0	0					
					UHF/VHF	Video	YPbPr 480i						
14	AFCG	AFC Loop Gain (PLL between Hsync & HVCO)		0, 1	1	0	0						
15	CDMD	V countdown system mode selector		0~3	3	3	3						
16	SSMD	H&Vsync slide level setting		0~3	0	0	0						
17	HMSK	Masking of macrovision signal on/off		0, 1	1	1	1						
18	HALI	H automatic adjustment on/off		0, 1	0	0	0		P&P & Favorite				Single
19	PPHA	H TIM phase adjustment for video		0~15	7	7	7						
					UHF/VHF & Video		YPbPr-480i						
					P&P-Left (M)-DRC	P&P-Left (M)-1080i	P&P-Left (M)-DRC	P&P-Left (M)-480i	P&P & Favorite				UBLK = 0~7
20	CBOF	Cb-Offset1 of Cb IN (Pin34) Cb-Offset2 of EXT Cb (Pin38)		0~(31)~63	31	31*	31	31*					
21	CROF	Cr-Offset1 of Cr IN (Pin35) Cr-Offset2 of EXT Cr (Pin39)		0~(31)~63	31	31*	31	31*					
	CXA2150P-4/#13 UBLK Setting-related Controls for ATPD & DCTR				P&P & Favorite				P&P & Favorite				Single
					UBLK = 0	UBLK = 1	UBLK = 2	UBLK = 3	UBLK = 4	UBLK = 5	UBLK = 6	UBLK = 7	
22	ATPD	Auto-pedestal Inflection Point		0~3	0	1	2	3	1	2	3	2	
23	DCTR	DC Transmission Ratio		0~3	0	1	1	1	2	2	2	3	0
Note: The same CXA2103 service data (Main&Sub) is used for DX1A-2001&2000.													

## DX1A-2001&amp;2000 SERVICE LIST (#2-2): CXA2103-2 {Sub}

Device Name: CXA2103Q { NTSC-YCT (Chroma Decoder) / SONY } / IC3110 (B-board) / P/N: 8-752-089-50 (SBorSD#: NA)

Slave Address: 9Eh { Sub }

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial Setting & [Average Data] (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Note
					UHF/VHF & Video				Video: CVideo1~4 & SVideo1~3 Inputs P&P-Right (S)-DRC: If P&P-Left is 1080i/ 480p signal, the signal from the sub chroma decoder is switched to DRC path.				
					P&P-Right (S)	P&P-Right (S)-DRC							
0	YLEV	Y-Out gain		0~63	23	22							
1	CLEV	Cb&Cr-Out gains		0~63	18	16			Adj.: Adjusted data [Adj.-2steps]: The adjusted data - 2 steps				
					UHF/VHF		Video						
2	SCON	Sub contrast	Adj.	0~15	7	[7]	7 [7]						
3	SCOL	Sub color	Adj.	0~15	7	[7]	7 [7]		SNNR=0 (-offset) 0 SNNR=1 (-offset) 1 SNNR=2 (-offset) 2 SNNR=3 (-offset) 3				
4	SHUE	Sub hue	Adj.	0~15	7 [Adj.-2steps]		7 [Adj.-2steps]						
5	YDLY	Y/C delay time		0~3	0		0						
		SNNR Data-related Settings			UHF/VHF	CVideo	SVideo		CVideo: CVideo1~4 Inputs SVideo: SVideo1~3 Inputs				
6	SHAP	Sharpness		0~15	6	4	4						
7	SHF0	Sharpness f0 selector		0~3	0	0	0						
8	PREO	Sharpness pre/over-shoot ratio		0~3	3	0	0						
9	BPF0	Chroma band filter f0 setting		0~3	0	0	0						
10	BPFQ	Chroma band filter Q setting		0~3	0	0	0						
11	BPSW	Chroma band filter on/off		0, 1	0	0	0						
12	TRAP	Y bolck chroma trap filter on/off		0, 1	0	0	0		*: Settings not used (31): The center setting = 31				
13	LPF	YPbPr-Output LPF on/off		0, 1	0	0	0						
					UHF/VHF		Video						
14	AFCG	AFC Loop Gain		0, 1	1	0							
15	CDMD	V countdown system mode selector		0~3	3	3							
16	SSMD	H&Vsync slide level setting		0~3	0	0							
17	HMSK	Masking of macrovision signal on/off		0, 1	1	1							
18	HALI	H automatic adjustment on/off		0, 1	0	0			P&P & Favorite				Single
19	PPHA	H TIM phase adjustment for video		0~15	7	7							
					UHF/VHF & CVideo		YPbPr-480i						
					P&P-Right (S)	P&P-Right (S)-DRC	P&P-Right (S)	P&P-Right (S)-DRC	P&P & Favorite				UBLK = 0~7
20	CBOF	Cb-Offset1 of Cb IN (Pin34) Cb-Offset2 of EXT Cb (Pin38)		0~(31)~63	31	31	31*	31*					
21	CROF	Cr-Offset1 of Cr IN (Pin35) Cr-Offset2 of EXT Cr (Pin39)		0~(31)~63	31	31	31*	31*					
	CXA2150P-4/#13 UBLK Setting-related Controls for ATPD & DCTR				P&P & Favorite				P&P & Favorite				
					UBLK = 0	UBLK = 1	UBLK = 2	UBLK = 3	UBLK = 4	UBLK = 5	UBLK = 6	UBLK = 7	
22	ATPD	Auto-pedestal Inflection Point		0~3	0	1	2	3	1	2	3	2	0
23	DCTR	DC Transmission Ratio		0~3	0	1	1	1	2	2	2	3	0

Note: The same CXA2103 service data (Main&amp;Sub) is used for DX1A-2001&amp;2000.

DX1A-2001&2000 SERVICE LIST (#3-1): CXA2150P-1 {Picture Controls: P1}												
Device Name: CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)												
Slave Address: 86h												
Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)							Comment
					UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	CV: CVideo1~4 SV: SVideo1~3 ( ): Settings at center
0	SBOT	Offset for SBRT		0~(7)~15	7	7	7	7	7	7	7	Adj.: Adjusted data C: Common data  Initial Setting = [Avg. Data]
1	YOF	Y_OFFSET: DC-offset for Y signal		0~(7)~15	0	0	0	0	0	0	0	
2	CBOF	CB_OFFSET: DC-offset for Cb signal		0~(31)~63	31	31	31	33	30	31	13	
3	CROF	CR_OFFSET: DC-offset for Cr signal		0~(31)~63	31	31	31	42	36	31	23	
4	SBRT	SUB_BRIGHT: Sub Bright	Adj.	0~63	24 [24]							
5	RDRV	R_DRIVE: R output drive	C	0~63	41							
6	GDRV	G_DRIVE: G output drive	Adj.	0~63	36 [36]							
7	BDRV	B_DRIVE: B output drive	Adj.	0~63	33 [33]							
8	RCUT	R_CUTOFF: R output cutoff	C	0~63	41							
9	GCUT	G_CUTOFF: G output cutoff	Adj.	0~63	11 [11]							
10	BCUT	B_CUTOFF: B output cutoff	Adj.	0~63	22 [22]							
					Vivid		Standard		Movie		Pro	
11	WBSW	WB_SW: White balance offset on/off (Related to UTMP seetings)		0, 1	0 (Cool)		0 (Neutral)		1 (Warm)		0	
12	SBOF	Offset for SBRT		0~(63)~127	63		63		63		63	**: The color temperature offset data
13	RDOF	Offset for RDRV		0~(63)~127	63		63		63**		63	
14	GDOF	Offset for GDRV		0~(63)~127	63		63		66**		63	
15	BDOF	Offset for BDRV		0~(63)~127	63		63		76**		63	
16	RCOF	Offset for RCUT		0~(63)~127	63		63		63**		63	
17	GCOF	Offset for GCUT		0~(63)~127	63		63		66**		63	
18	BCOF	Offset for BCUT		0~(63)~127	63		63		78**		63	
Note: The same CXA2150 service data is used for DX1A-2001&2000.												

DX1A-2001&2000 SERVICE LIST (#3-2): CXA2150P-2 {Picture Controls: P2}											
Device Name: CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)											
Slave Address: 86h											
Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)						Comment
0	ALBK	PIC_ON: RGB output including AKB reference pulse on/off (Setting = 0 for power on reset) --- G2 adjustment register setting	C	0, 1	1						C: Common data
1	RGBS	R_ON/G_ON/B_ON: R/G/B outputs on/off (AKB reference pusle can not be turned on/off.) (0,1/0,1/0,1)	C	0~7	7						
2	BLKB	BLK_BT: RGB output bottom limit level (Black Limit) (AKB reference pusle DC-voltage)	C	0~3	3						
3	LIML	PLIMIT_LEV: Threshold level for excessively high inputs (White Limit	C	0~3	0						
4	PABL	P_ABL: DC-level in RGB output detection for PEAK ABL	C	0~15	15						
5	SABL	S_ABL: S_ABL gain	C	0~3	0						
6	AGNG	AGING_W/AGING_B: AGING_W/AGING_B modes on/off (Set luminance to 80/01IRE flat-field signal.)	C	0~3 (0,1/0,1)	0						
7	AKBO	AKBOFF: Automatic/Manual-Cutoff setting	C	0, 1	0						Video1~4: CVideo1~4 & SVideo1~3
					U/VHF & Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P		
8	SYPH	SYNC_PHASE: Hsync delay with respect to Video (100%: H-period)		0~3	0	0	0	0	0		
9	CLPH	CLP_PHASE: Internal clamp pulse phase (100%: H-period)		0~3	3	3	3	3	3		
10	CLGA	CLP_GATE: Switch for the gated internal clamp pulse with Hsync input		0, 1	0	0	0	0	0		
11	JAXS	JAXIS: Color axis switch		0, 1	0						
12	BLKO	BLKO: Blanking switch		0, 1	0						
Note: The same CXA2150 service data is used for DX1A-2001&2000.											

## DX1A-2001&amp;2000 SERVICE LIST (#3-3): CXA2150P-3 {Picture Controls: P3} (Part-1/3)

Device Name: CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)

Slave Address: 86h

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)								Comment
				Picture Mode: Vivid								
				UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P		
0	<b>SYSM</b>	SYSTEM: Signal bandwidth setting		0~3	1	1	1	1	1	2	2	These settings continue to the next page.  CV: CVideo1~4 SV: SVideo1~3  C: Common data  ( ): Settings at center
1	<b>UVML</b>	VM_LEV: VM_OUT level	C	0~3	3							
2	<b>VMMO</b>	System Micro pin#40		0, 1	0	0	0	0	0	0	0	
3	<b>VMCR</b>	VM_COR: VM_OUT coring level		0~3	3	3	3	3	3	3	3	
4	<b>VMLM</b>	VM_LMT: VM_OUT limit level		0~3	3	3	3	3	3	3	3	
5	<b>VMF0</b>	VM_F0: VM_f0		0~3	2	2	2	2	2	2	2	
6	<b>VMDL</b>	VM_DLY: VM_OUT phase (defined by phase difference from R_OUT)		0~3	3	3	3	3	3	1	3	
7	<b>SHOF</b>	Offset for USHP = SHOF x 4		0~3	2	2	2	3	3	0	2	
8	<b>SHF0</b>	SHP_F0: Sharpness circuit f0		0, 1	1	1	1	1	1	0	1	
9	<b>PROV</b>	PRE/OVER: Y signal pre/over-shoot ratio		0~3	3	3	3	1	3	0	3	
10	<b>F1LV</b>	SHP_F1: Sharpness for higher f0 (4.2/5.6 MHz @ NORMAL mode)		0~3	0	3	3	3	3	3	3	
11	<b>CDSP</b>	SHP_CD: Sharpness in part of high color saturaion		0~3	3	3	3	3	3	3	3	
12	<b>LTLV</b>	LTI_LEV: Luminance transient improvement (LTI)		0~3	3	3	3	3	3	3	3	
13	<b>LTMD</b>	LTI_MODE: LTI mode setting		0~3	0	0	0	0	0	0	1	
14	<b>CTLV</b>	CTI_LEV: Chrominance transient improvement (CTI)		0~3	0	0	0	0	0	2	0	
15	<b>CTMD</b>	CTI_MODE: CTI mode setting		0~3	0	0	0	0	0	0	0	
16	<b>UBOF</b>	Offset for UBRT (Picture clarity adjustment)		0~(7)~15	7	7	7	7	7	10	7	
17	<b>UCOF</b>	Offset for UCOL = UCOF x 2 (Picture clarity adjustment)		0~3	3	3	3	3	3	0	3	
18	<b>UHOFF</b>	Offset for UHUE (Picture clarity adjustment)		0~3	0	0	0	0	0	0	0	
19	<b>MIDE</b>	MID enhancement setting		0~15	3	3	3	7	11	---	---	
<b>Note:</b> The same CXA2150 service data are used for DX1A-2001&2000.												

## DX1A-2001&amp;2000 SERVICE LIST (#3-3): CXA2150P-3 {Picture Controls: P3} (Part-2/3)

Register No & Name	Data Initial/Average Settings (32V&36V CRTs)							Data Initial/Average Settings (32V&36V CRTs)							Data Initial/Average Settings (32V&36V CRTs)							Note
	Picture Mode: Standard							Picture Mode: Movie							Picture Mode: Pro							
	UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	UHF VHF	CV	SV	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	
#0 SYSM (cont.)	1	1	1	1	1	2	2	1	1	1	1	1	2	2	1	1	1	1	1	2	2	See next page
#1 UVML (cont.)	3							0							0							
#2 VMMD (cont.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
#3 VMCR (cont.)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
#4 VMLM (cont.)	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3		
#5 VMF0 (cont.)	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2		
#6 VMDL (cont.)	1	3	3	3	3	1	3	1	1	1	1	1	3		1	1	1	1	1	3		
#7 SHOF (cont.)	0	3	3	3	3	0	2	0	3	3	3	0	3		0	1	1	1	1	0	1	
#8 SHF0 (cont.)	0	1	1	1	1	0	1	0	0	0	0	0	1		0	0	0	0	0	0	1	
#9 PROV (cont.)	3	3	3	1	3	0	3	3	3	3	1	3	0	3	3	3	3	1	3	0	3	
#10 F1LV (cont.)	0	3	3	3	3	3	3	0	0	0	0	0	0	3	0	0	0	0	0	0	3	
#11 CDSP (cont.)	3	3	3	3	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#12 LTLV (cont.)	2	2	2	2	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#13 LTMD (cont.)	1	1	1	1	1	1	1	1	1	1	1	0	0	1	1	1	1	1	0	0	1	
#14 CTLV (cont.)	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#15 CTMD (cont.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#16 UBOF (cont.)	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
#17 UCOF (cont.)	3	3	3	3	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#18 UHOF (cont.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
#19 MIDE (cont.)	2	2	2	6	10	---	---	1	1	1	5	9	---	---	0	0	0	4	8	---	---	
<b>Note:</b> The same CXA2150 service data are used for DX1A-2001&2000.																						

## DX1A-2001&amp;2000 SERVICE LIST (#3-3): CXA2150P-3 {Picture Controls: P3} (Part-3/3)

Register No & Name	Data Initial/Average Settings (32V&36V CRTs)					Comment															
	SNNR=0 (Offset)	SNNR=1 (Offset)	SNNR=2 (Offset)	SNNR=3 (Offset)																	
#1 UVML (cont.)	0	0	0	0																	
#3 VMCR (cont.)	0	+ 1	+ 2	+ 3																	
#10 F1LV (cont.)	0	- 1	- 2	- 3																	
#11 CDSP (cont.)	0	0	0	0																	
#12 LTLV (cont.)	0	0	0	0																	
#14 CTLV (cont.)	0	0	0	0																	
#19 MIDE (cont.)	0	0	0	0																	

**Note:**  
The same CXA2150 service data are used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-1/4)													
Device Name:		CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)				Slave Address: 86h							
Device Name:		CXD2085M { ID-1 Decoder / SONY } / IC3603 (B-board) / P/N: 8-752-395-13 (SD#: S98511B)				Slave Address: 40h							
Register No & Name		Control Register Function & Link		Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)						Comment	
						Vivid		Standard		Movie	Pro	Settings for 36V CRTs are used for initial settings.	
						32V	36V	32V	36V	32&36V			
0	UPIC	PICTURE: Picture			0~63	63	63	42	46	31	31		
1	UBRT	BRIGHT: Brightness			0~63	25	22	28	26	28	31		
2	UCOL	COLOR: Color			0~63	34	38	33	33	33	31	This setting continues to the next page.	
3	UHUE	HUE: Hue			0~63	31	31	31	31	31	31		
		SNNR Setting-related Controls for USHP											
4	USHP	SHARPNESS: Sharpness			0~63	38	42	44	48	34	31		
5	UTMP	Color Temperature (0: Warm, 1: Neutral, 2: Cool)			0~2	2	2	1	1	0	1	These settings continue to the next page.	
6	UDCL	DCOL: Dynamic color setting			0~3	2	2	2	2	2	0		
						Picture Mode: Vivid / Standard / Movie							
						UHF/VHF Video1~4		YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P		
7	AXIS	COL AXIS: Color matrix setting			0~3	3	3	3	3	3	3	Video1~4: CVideo1~4 & SVideo1~3	
						Picture Mode: Vivid							
						UHF/VHF Video1~4		YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P		
8	UGAM	GAMMA/GAMMA_L: RGB output GAMMA correction setting (B <sub>7~6</sub> ) GAMMA L: Slight GAMMA correction on/off (B <sub>0</sub> )			0~7 (0~3/0,1)	5	5	5	5	5	5		
9	AGAM	GAMMA/GAMMA_L (Av Pro user control) --- Void Data			0~7 (0~3/0,1)	---						These settings continue to the next page.	
		UGAM Setting-related Controls for GSBO, GCOO, GHUO				UGAM = 7	UGAM = 6	UGAM = 5	UGAM = 4	UGAM = 3	UGAM = 2		UGAM = 1
10	GSBO	Offset for SBRT (8 types of GSBO data based on UGAM values)			0~3	0	0	0	0	0	0		0
11	GCOO	Offset for UCOL			0~3	0	0	0	0	0	0		0
12	GHUO	Offset for UHUE			0~3	0	0	0	0	0	0	0	These settings continue to the next page.
						Picture Mode: Vivid							
						UHF/VHF Video1~4		YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P		
13	UBLK	Item # 15~18 pack FI data controls			0~7	7	7	7	7	7	7		
14	ABLK	(Av Pro user control) --- Void Data			0~7	0 (Void data)						These settings continue to the next page. ( ): Seetings at center	
		UBLK Setting-related Controls for DCTR											
15	DCTR	DC_TRAN: Y signal DC transmission (8 types of DCTR data based on UBLK values)			0~3	3	3	3	3	2			
16	DPIC	DPIC_LEV: Y signal AUTO PEDESTAL level			0~3	2	2	2	2	1			
17	DSBO	Offset for SBRT			0~(7)~15	7	7	7	7	7	7		
18	ABLM	ABL_MODE: ABL mode			0~3	1	1	1	1	1	1		
<b>Note:</b> The same CXA2150 service data are used for DX1A-2001&2000.													

## DX1A-2001&amp;2000 SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-2/4)

Register No & Name		Data Initial/Average Settings (32V&36V CRTs)					Data Initial/Average Settings (32V&36V CRTs)					Data Initial/Average Settings (32V&36V CRTs)					Note
SNNR Setting (-Offset)		SNNR = 0	SNNR = 1	SNNR = 2	SNNR = 3												
#4 USHP (cont.)		0	1	3	4												
		Picture Mode: Pro															
		UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P											
#7 AXIS (Cont.)		3	3	3	3	3											
		Picture Mode: Standard					Picture Mode: Movie					Picture Mode: Pro					
		U/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	U/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	U/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	
#8 UGAM (Cont.)		2	2	2	2	2	0	0	0	0	0	0	0	0	0	0	
		UGAM = 0															
#10 GSBO (cont.)		0															
#11 GCOO (cont.)		0															
#12 GHUO (cont.)		0															
		Picture Mode: Standard					Picture Mode: Movie					Picture Mode: Pro					
		UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	
#13 UBLK (Cont.)		4	4	4	4	4	1	1	1	1	1	0	0	0	0	0	
#15 DCTR (Cont.)		2	2	2	2	2	1	1	1	1	1	1	1	1	1	1	
#16 DPIC (Cont.)		1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	
#17 DSBO (Cont.)		7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	
#18 ABLM (Cont.)		1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
<b>Note:</b> The same CXA2150 service data are used for DX1A-2001&2000.																	

DX1A-2001&2000 SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-3/4)									
Register No & Name	Data Initial/Average Settings (32V&36V CRTs)								Comment
	UBLK = 7	UBLK = 6	UBLK = 5	UBLK = 4	UBLK = 3	UBLK = 2	UBLK = 1	UBLK = 0	
#15 DCTR (Cont.)	3	2	2	2	1	1	1	1	
#16 DPIC (Cont.)	2	3	2	1	3	2	1	0	
#17 DSBO (Cont.)	7	7	7	7	7	7	7	7	
#18 ABLM (Cont.)	1	0	0	1	0	0	0	0	
<b>Note:</b> The same CXA2150 service data are used for DX1A-2001&2000.									

DX1A-2001&2000 SERVICE LIST (#3-4): CXA2150P-4 {Picture Controls: P4} (Part-4/4)										
Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)					Comment
19	ABLT	ABL TH: ABL current detection Vth control		0~15	0					Full: 480p/960i (4x3) Vcomp1: 480p/960i (16x9) Vcomp2: 1080i (16x9)  ( ): Settings at center C: Common data
					Full	Vcomp1	Vcomp2			
20	ABLC	Control of CXA2026 {0Ch -- DAC0} (*)		0~255	0	66				
21	EPOF	Offset for UPIC = EPOF x (UPIC/63) (for power save) --- Void Data	---	0~31						
		ID-1 and P&P Modes								
22	SPOF	Offset for UPIC = SPOF x (UPIC/64) --- Data Not Used	---	0~31	0 (Not used)					
					UHF/VHF Video1~4	YPbPr 480i	YPbPr 480p	YPbPr 1080i	P&P	
23	SCON	SUB CONTRAST: SUB PICTURE		0~15	9	8	11	10	9	
24	CLOF	Offset for UCOL		0~(7)~15	8	8	9	7	8	
25	HUOF	Offset for UHUE		0~7~15	4	3	3	3	4	
		CXD2085 Service Controls								
26	IDSW	Switch for activating the selection in #27 DATA	C	0, 1	0					
					Full	Vcomp1	Vcomp2			
27	DATA	Selection of geometry-forced vertical compression modes	C	0~3	0	1	2			
Note: The same CXA2150 service data are used for DX1A-2001&2000.										

DX1A-2001&2000 SERVICE LIST (#4-1): CXA2150D-1 {Deflection Controls: D1}							
Device Name: CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)							
Slave Address: 86h							
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
0	<b>VPOS</b> V POSITION: Vertical position (V DRV signal DC-bias)	Adj.	0~(31)~63	Full	Vcomp1	Vcomp2	Full: 480p/960i (4x3) display Vcomp1: 480p/960i (16x9) display Vcomp2: 1080i (16x9) display
1	<b>VSIZ</b> V SIZE: Vertical size (V DRV signal gain)	Adj.	0~(31)~63		26 [26]		
2	<b>VLIN</b> V LINEARITY: Vertical linearity (Gain for V DRV signal secondary component)	Adj.	0~(7)~15		19 [19]		
3	<b>VSCO</b> S CORRECTION: Vertical S-correction	Adj.	0~(7)~15		9 [9]		Adj.: Adjusted data ( ): Settings at center
4	<b>VCEN</b> VSAW0_DCH/VSAW0_DCL: Vertical center adjustment VSAW0_DCH: VSAW0 waveform DC component (high 2-bits) VSAW0_DCL: VSAW0 waveform DC component (low 4-bits)	Adj.	0~(31)~63		8 [8]		
5	<b>VPIN</b> VSAW0_AMP: Vertical PIN adjustment VSAW0 waveform SAW component amplitude	Adj.	0~(15)~31		31 [31]		VCEN-L(Low bit) VCEN-H(High bit)
6	<b>NSCO</b> VSAW1_DC: Rotation	Adj.	0~(7)~15	15 [15]	15 [Copy1]		[Copy1]: Copy the adjusted data for Full mode.
7	<b>HTPZ</b> VSAW1_AMP: Horizontal trapezoid	Adj.	0~(15)~31		7 [7]		Either 7 or 8 can be used as the average NSCO data. (If both of them are not good, please feedback to / check with the DY attachment process.)
8	<b>ZOOM</b> ZOOM SW: Zoom switch		0, 1		15 [15]		
9	<b>APSW</b> ASP SW: Aspect switch		0, 1	0	0		
10	<b>ASPT</b> V ASPECT: Aspect ratio	Adj.	0~63	1	1	0	
11	<b>SCRL</b> V SCROLL: Vertical scroll	Adj.	0~(31)~63	47	47	47	
12	<b>UVLN</b> UP_VLIN: Upper vertical linearity		0~15	31	32	32	
13	<b>LVLN</b> LO_VLIN: Lower vertical linearity		0~15	0	0	0	
<b>Note:</b> The same CXA2150 service data is used for DX1A-2001&2000.							

**DX1A-2001&2000 SERVICE LIST (#4-2): CXA2150D-2 {Deflection Controls: D2}****Device Name:** CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)**Slave Address:** 86h

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
				Full	Vcomp1	Vcomp2	
0	<b>HCNT</b> HC PARA DC: Horizontal center	Adj.	0~(31)~63		31 [31]		Full: 480p/960i (4x3) display Vcomp1: 480p/960i (16x9) display Vcomp2: 1080i (16x9) display  ( ): Settings at center
1	<b>HPOS</b> H_POSITION: Horizontal position	Adj.	0~(31)~63	31 [31]		31 [Adj.-6steps]	
2	<b>HSIZ</b> H_SIZE: Horizontal size	Adj.	0~(31)~63	45 [45]			
3	<b>SLIN</b> MP PARA DC: Horizontal S-correction	Adj.	0~15	3 [3]			Adj.: Adjusted data [Adj.-6steps]: The adj. data for Vcomp2 mode = The adj. data for Full/Vcomp1 modes - 6 steps
4	<b>MPIN</b> MP PARA AMP: Horizontal middle pin		0~15	9 (32V) or 7 (36V)			
5	<b>PIN</b> PIN AMP: Horizontal pin	Adj.	0~(31)~63	35 [35]			
6	<b>UCP</b> UP CPIN: Upper corner pin	Adj.	0~(31)~63	38 [38]			Data (32Vor36V): The data for 36V are used as the Initial & CBA data.
7	<b>LCP</b> LO CPIN: Lower corner pin	Adj.	0~(31)~63	42 [42]			
8	<b>UXCG</b> UP UCG: Upper extra corner pin gain		0~3	2 (32V) or 1 (36V)			
9	<b>LXCG</b> LO UCG: Lower extra corner pin gain		0~3	2			From the system micro (V 2.0), the deflection control-related initial settings are the same as their average data.
10	<b>UXCP</b> UP UCP: Upper extra corner pin position		0~3	2			
11	<b>LXCP</b> LO UCP: Lower extra corner pin position		0~3	2			
12	<b>XCPP</b> UC POL: Extra corner pin polarity		0, 1	0			
13	<b>PPHA</b> PIN PHASE: Pin phase	Adj.	0~(31)~63	15 [15]			
14	<b>VANG</b> AFC ANGLE: AFC angle	Adj.	0~(31)~63	31 [31]			
15	<b>LANG</b> HC PARA PHASE: Linearity angle	Adj.	0~(31)~63	31 [31]			
16	<b>VBOW</b> AFC BOW: AFC bow	Adj.	0~(31)~63	31 [31]			
17	<b>LBOW</b> HC PARA AMP: Linearity bow	Adj.	0~(31)~63	31 [31]			
18	<b>CPY1</b> Copy Function 1: (Set CPY1=1, then press MUTE + Enter.) Copy all CXA2150D-2 data for Full mode to Vcomp1&2	Micro	0, 1	0			For engineering design use only

**Note:**

The same CXA2150 service data is used for DX1A-2001&amp;2000.

**DX1A-2001&2000 SERVICE LIST (#4-3): CXA2150D-3 {Deflection Controls: D3}****Device Name:** CXA2150AQ { CRT Driver / SONY } / IC201 (A-board) / P/N: 8-752-093-35 (SBorSD#: NA)**Slave Address:** 86h

Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)			Comment
					Full	Vcomp1	Vcomp2	Full: 480p/960i (4x3) display Vcomp1: 480p/960i (16x9) display Vcomp2: 1080i (16x9) display
0	HBLK	HBLK_SW: Horizontal blanking switch		0, 1	1			
1	LBLK	LEFT_BLK: Left blanking		0~63	45		50	
2	RBLK	RIGHT_BLK: Right blanking		0~63	24		27	
3	VBK	VBLK_SW: Vertical blanking switch		0, 1	1	1		
4	TBLK	UP_BLK: Top blanking		0~(7)~15	1	8	12	( ): Settings at center
5	BBLK	LO_BLK: Bottom blanking		0~(7)~15	0	13	13	
6	VCMP	V_COMP: Vertical compensation		0~15	0	0	0	
7	HCMP	H_COMP: Horizontal compensation		0~15	0	0		
8	ACMP	AFC_COMP: AFC compensation		0~7	0	0		
9	PCMP	PIN_COMP: Pin compensation		0~7	0	0		
10	AFCM	AFC_MODE: AFC loop gain		0~3	3		2	
11	VFRQ	V_FREQ: Vertical frequency		0~3	1			
12	VON	V_ON: Vertical drive on		0, 1	1			
13	JUMP	JMP_SW: Reference pulse jump switch		0, 1	0	1		
14	VDJP	VDRV_SW: Vertical drive jump switch		0, 1	0	0	1	
15	VDST	RST_SW: Vertical drive start switch		0, 1	0	0	1	
16	EWDC	EW_DC: Pin DC level shift		0, 1	0	0		
17	AKBT	AKBTIM: AKB timing		0~31	20	20	10	

**Note:**

The same CXA2150 service data is used for DX1A-2001&amp;2000.

## DX1A-2001&amp;2000 SERVICE LIST (#5): CXA2151Q

Device Name: CXA2151Q { Component I/F &amp; Sync Separation / SONY } / IC3001 (B-board) / P/N: 8-752-093-84 (SD#: S00302B)

Slave Address: 84h

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Settings (32V&36V CRTs)			Comment
				480i (15.75 KHz)	480p (31.50 KHz)	1080i (33.75 KHz)	<u>Video5&amp;6:</u> YPbPr-480i/480p/1080i inputs <u>Sub:</u> 480i input from the sub-channel  <u>Full:</u> 480p/960i (4x3) display <u>Vcomp1:</u> 480p/960i (16x9) display <u>Vcomp2:</u> 1080i (16x9) display  <u>C:</u> Common data
0	<b>MTRX</b> MAT_OUT: Selection of color matrix conversion types	Micro	0~3	0	0	1	
1	<b>GAIN</b> GAIN_SEL: Selection of output signals for SELYOUT, SELCBOUT, SELCROUT	C	0~3	0			
2	<b>CBGN</b> YGAIN, CBGAIN, CRGAIN: The gain control of SELYOUT, SELCBOUT, & SELCROUT	C	0~15	9			
3	<b>VTC</b> V TC: Setting of Vsync separation time constant	C	0~3	1			
4	<b>HWID</b> H WIDTH: Setting of the output pulsewidth of SELHOUT	C	0~3	1			
				<b>Video5</b>	<b>Video6</b>	<b>Sub</b>	
5	<b>HSEP</b> HSEP_SEL: Setting for the sync separation system		0, 1	0	0	0	
6	<b>TEST</b> TEST: Test mode selection (for device tests)	C	0, 1	0			
7	<b>FRGB</b> The forced RGB selection (for tests) {0: MAT_OUT = MTRX (#0), 1: MAT_OUT = MTRX (#3)}	C	0, 1	0			
				<b>Full</b>	<b>Vcomp1</b>	<b>Vcomp2</b>	
8	<b>HMSK</b> Hsync masking in vertical retrace		0, 1	1		0	
<b>Note:</b> The same CXA2151 service data is used for DX1A-2001&2000.							

DX1A-2001&2000 SERVICE LIST (#6): D-CONV / CXA8070								
Device Name: CXA8070AP { DY-Convergence Control / SONY } / IC5513 (D-board) / P/N: 8-759-595-52 (SB#: V1718)								
Slave Address: DEh								
Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
					Full	Vcomp1	Vcomp2	<u>Full</u> : 480p/960i (4x3) display mode <u>Vcomp1</u> : 480p/960i (16x9) display mode <u>Vcomp2</u> : 1080i (16x9) display mode  <u>Adj.</u> : Adjusted data  From the system micro (V 2.0), the deflection control-related initial settings are the same as their average data.
0	SBHS	DC AMP3: DC shift	Adj.	0~63	31 [31]	31 [31]		
1	YBWU	VCA9: Upper Y-bow	Adj.	0~63	31 [31]	31 [31]		
2	YBWL	VCA10: Lower Y-bow	Adj.	0~63	31 [31]	31 [31]		
3	RSAP	DC AMP2: Right H-AMP	Adj.	0~63	31 [31]	31 [31]		
4	RUBW	VCA5: Right upper bow	Adj.	0~63	31 [31]	31 [31]		
5	RLBW	VCA6: Right lower bow	Adj.	0~63	31 [31]	31 [31]		
6	LSAP	DC AMP1: Left H-AMP	Adj.	0~63	31 [31]	31 [31]		
7	LUBW	VCA1: Left upper bow	Adj.	0~63	31 [31]	31 [31]		
8	LLBW	VCA2: Left lower bow	Adj.	0~63	31 [31]	31 [31]		
9	CADJ	DC AMP4: Offset adjustment (ADJ)	Adj.	0~63	48 [48]			For engineering design use only
10	CPY2	Copy Function 2: (Set CPY2=1, then press MUTE + Enter.)	Micro	0, 1	0			
<b>Note:</b> The same CXA8070 service data is used for DX1A-2001&2000.								

**DX1A-2001&2000 SERVICE LIST (#7): CXA2026AS****Device Name:** CXA2026AS { DQP Control / SONY } / IC5511 (D-board) / P/N: 8-752-074-64 (SD#: S95610B)**Slave Address:** 8Eh

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial Settings & [Average Data] (32V&36V CRTs)			Comment
0	<b>DFON</b> SW0: DF on/off switch	C	0, 1	Full 0	Vcomp1	Vcomp2	Full: 480p/960i (4x3) display mode Vcomp1: 480p/960i (16x9) display mode Vcomp2: 1080i (16x9) display mode C: Common data Adj.: Adjusted data
1	<b>DQP</b> PWM: DQP phase	Adj.	0~63	23 [23]	23 [23]		
2	<b>DF</b> DAC1: DF phase	Adj.	0~63	25 [25]	25 [25]		
3	<b>DQPD</b> H.AMP: DQP dc-level	Adj.	0~63	34 [34]	34 [34]		
4	<b>QPDV</b> U.CBOW, L.CBOW: DQP dc-level vertical modulation		0~63	51	47		U.CBOW = QPDV + DVS L.CBOW = QPDV - DVS
5	<b>DVS</b> U.CBOW, L.CBOW: DQP dc-level tilt		0~(3)~7	0	0		
6	<b>QPDY</b> U.MBH,L.MBH: DQP dc-level at top & bottom areas		0~63	7	7		( ): Settings at center
7	<b>DQPA</b> DC SHIFT: DQP amplitude	Adj.	0~63	22 [27] (32V) or 13 [15] (36V)	22 [27] (32V) or 13 [15] (36V)	22 [27] (32V) or 13 [15] (36V)	Data (36V) are used as Initial/CBA data. From the system micro (V 2.0), most deflection control-related initial settings are the same as their average data.
8	<b>QPAV</b> U.YBOW, LYBOW: DQP amplitude vertical modulation		0~63	38	34		U.YBOW = QPAV + AVS L.YBOW = QPAV - AVS
9	<b>AVS</b> U.YBOW, LYBOW: DQP amplitude tilt		0~7	3	3		
10	<b>NORM</b> SW1:		0, 1	0	0		
11	<b>CPY3</b> Copy Function 3: (Set CPY3=1, then press MUTE + Enter.)	Micro	0, 1	0			For engineering design use only
12	<b>200V</b> H.DUTY, H.TILT: 200V regulator adjustment	Adj.	0~63	31 [31]			

**Note:**  
The same CXA2026 service data is used for DX1A-2001&2000.

DX1A-2001&2000 SERVICE LIST (#8): Audio Processing (AP) / BH3868AFS					
Device Name: BH3868AFS { Audio Processor / ROHM } / IC7001 (A-board) / P/N: 8-759-678-92 (SBorSD#: NA)					
Slave Address: 82h					
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment
0 <b>SVOL</b>	Volume: Offset for Volume		0~3	0	
1 <b>SBAL</b>	Balance: Offset for Balance		0~(3)~7	7	( ): Settings at center
2 <b>SBAS</b>	Bass: Offset for Bass		0~(3)~7	7	
3 <b>STRE</b>	Treble: Offset for Treble		0~(3)~7	7	
4 <b>BBLP</b>	BBE lowpass filter		0~15	0	
5 <b>BBHP</b>	BBE highpass filter		0~15	2	
6 <b>SREF</b>	Surround effect		0~7	11	
7 <b>AGC</b>	Auto gain control		0, 1	0	
8 <b>BBE</b>	BBE on/off		0, 1	1	
Note: The same AP service data is used for DX1A-2001&2000.					

DX1A-2001&2000 SERVICE LIST (#9): TruSurround (TRUS) / NJM2180					
Device Name: NJM2180M { TruSurround 3D-Audio Processor / JRC } / IC4101 (S-board) / P/N: 8-759-686-15 (SB#: V9072)					
Device Control: Controlled via CXA1315M (Audio Control D/A, IC4103/S-board, Slave Address: 48h) / P/N: 8-752-059-23 (SD#: S88Z45B)					
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment
0 <b>TS</b>	TruSurround effect selection		0~3	2	C: Common data
1 <b>DMY1</b>	Dummy data (No functions)	C	0~255	0	DMY1 is used to fulfil the minimum requirement of 2 control items in each service control category.
Note: The same TRUS service data is used for DX1A-2001&2000.					

DX1A-2001* SERVICE LIST (#10): MID1 (Common Data)							
Device Name: CXD9509AQ { MID-XA / Fujitsu & SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)							
Slave Address: 2Eh { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 6-800-050-01 (SB#: V4216) }							
MID-XA Micro (MASK type): MB94918RPF-G-137-BND, MID-XA Software: Version 12/08/00, (P/N: 6-800-050-01)							
Register No & Name	Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V/36V/40V CRTs)		Comment
					MID Mode: All (Single & P&P & Favorite)		
0	DHPH	Horizontal phase of the active display area	d_h_phase	C	0~255	91	C: Common data
1	DVPH	Vertical phase of the active display area	d_v_phase	C	0~63	20	
2	DHAR	Horizontal size of the active display area	d_h_area	C	0~255	240	
3	DVAR	Vertical size of the active display area	d_v_area	C	0~255	135	
4	DHPW	Horizontal pulse width	d_h_pwidth	C	0~63	27	
5	DVPW	Vertical pulse width	d_v_pwidth	C	0~7	7	
6	DYCD	Delay of YC signal output	d_yc_delay	C	0~63	2	
7	DYSD	Delay of YS signal output	d_ys_delay	C	0~7	1	
					MID Mode: Single & Favorite		
					Single 480i&p	Single 1080i	Favorite
8	MDHP	Horizontal position of the main picture	m_dsp_hpos		0~255	33	12
9	MDVP	Vertical position of the main picture	m_dsp_vpos		0~255	32	8 14
10	MDHS	Horizontal size of the main picture	m_dsp_hsiz		0~255	230	158
11	MDVS	Vertical size of the main picture	m_dsp_vsiz		0~255	120 135	106
					MID Mode: P&P & Favorite		
12	MLHP	(Horizontal position of the multi pictures)			0~255	54	
13	MLVP	(Vertical position of the multi pictures)			0~255	31	
					MID Mode: Favorite		
14	SDHP	Horizontal position of the sub picture	s_dsp_hpos		0~255	172	
15	SDVP	Vertical position of the sub picture	s_dsp_vpos		0~255	14	
16	SDHS	Horizontal size of the sub picture	s_dsp_hsiz		0~255	61	
17	SDVS	Vertical size of the sub picture	s_dsp_vsiz		0~255	41	
					MID Mode: All (Single & P&P & Favorite)		
18	DPSW	Switch of display output PLL	dsp_pll_sw	C	0, 1	0	0: MUST be used in DX1A-2001, 1: Used in DX1A-2000
19	MDL0	Model selection 0 (0: 16x9, 1: 4x3)		C	0, 1	0	
<b>Note:</b> * These MID1 settings are used for DX1A-2001 ONLY. The DPSW setting was changed from 1 in DX1A-2000 to 0 in DX1A-2001.							

**DX1A-2001&2000 SERVICE LIST (#11): MID2 (DRC-in Data)**

Device Name: CXD9509AQ { MID-XA / Fujitsu &amp; SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)

Slave Address: 2Eh { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 6-800-050-01 (SB#: V4216) }

MID-XA Micro (MASK type): MB94918RPF-G-137-BND, MID-XA Software: Version 12/08/00, (P/N: 6-800-050-01)

Register No & Name		Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)						
						MID Mode: Single		MID Mode: P&P & Favorite			MID Mode: Freeze	
						YC 480i	YPbPr 480i	YC 480i	YPbPr 480i	YC 480i-(R)	YC 480i	YPbPr 480i
0	DRHP	Horizontal position of the active display area (DRC-in)	drc_hactv_pos		0~255	120	116	131	129	137	138	136
1	DRHS	Hsize of the active display area (DRC-in)	drc_hactv_siz		0~255	174	174	167	167	168	165	165
2	DRVP	Vposition of the active display area (DRC-in)	drc_vactv_pos		0~63	38	38	53	53	53	53	53
3	DRVS	Vertical size of the active display area (DRC-in)	drc_vactv_siz		0~255	120	120	112	112	112	112	112

Note:

The same MID2 service data is used for DX1A-2001&amp;2000.

**DX1A-2001&2000 SERVICE LIST (#12): MID3 (VDO-in Data) (Part-1/2)**

Device Name: CXD9509AQ { MID-XA / Fujitsu &amp; SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)

Slave Address: 2Eh { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 6-800-050-01 (SB#: V4216) }

MID-XA Micro (MASK type): MB94918RPF-G-137-BND, MID-XA Software: Version 12/08/00, (P/N: 6-800-050-01)

Register No & Name	Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Comment
					MID Mode: Single				Dummy-480i settings are used for No Signal cases.  These settings continue to the next page.
						YPbPr 480P		Dummy 480i	
0	<b>VDHP</b>	Horizontal position of the active display area (VDO-in)	vdo_hactv_pos		0~255	122		179	
1	<b>VDHS</b>	Horizontal pixel size of the active display area (VDO-in)	vdo_hactv_pos		0~255	159		199	
2	<b>VDVE</b>	Vertical even position of the active display area (VDO-in)	vdo_vactv_evn		0~63	39		24	
3	<b>VDVS</b>	Vertical line size of the active display area (VDO-in)	vdo_vactv_pos		0~255	129		56	
					YC 480i	YPbPr 480P	YPbPr 1080i	Dummy 480i	
4	<b>VDVO</b>	Vertical odd position of the active display area (VDO-in)	vdo_vactv_odd		0~3	0	0	0	
5	<b>VCPO</b>	Clamp pulse output timing (VDO-in)	vdo_clp_pos		0~255	95	70	40	90
6	<b>VCWD</b>	Clamp pulse width (VDO-in)	vdo_clp_wdt		0~7	3	3	3	3
7	<b>VYCD</b>	Analog input YC delay (VDO-in)	vdo_yc_delay		0~63	0	0	0	0
						YPbPr 480P	YPbPr 1080i		
8	<b>VSTP</b>	PD stop line count of external PLL (VDO-in)	vdo_pll_stop		0~255	119	160		
9	<b>VSTT</b>	PD start line count of external PLL (VDO-in)	vdo_pll_strt		0~15	7	0		
						MID Mode: All (Single & P&P & Favorite)			
10	<b>VHSC</b>	Horizontal sync cycle (VDO-in)	vdo_hsync_cyc		0~255	130			

Note:

The same MID3 service data is used for DX1A-2001&amp;2000.

**DX1A-2001&2000 SERVICE LIST (#12): MID3 (VDO-in Data) (Part-2/2)**

Register No & Name	Data Initial Setting (32V&36V CRTs)				Data Initial Setting (32V&36V CRTs)			Comment
	MID Mode: P&P / Favorite				MID Mode: FREEZE			
	YC 480i	YPbPr 480P	YPbPr 1080i	Dummy 480i	YPbPr 480P	YPbPr 1080i	Dummy 480i	Dummy-480i settings are used for No Signal cases.
#0 VDHP (cont.)	197	127	91	179	131	98	179	
#1 VDHS (cont.)	219	154	151	199	153	149	199	
#2 VDVE (cont.)	24	53	37	24	53	37	24	
#3 VDVS (cont.)	56	112	126	56	112	126	56	

**Note:**  
The same MID3 service data is used for DX1A-2001&2000.

**DX1A-2001&2000 SERVICE LIST (#13): MID5 (Picture Data: MIDE) (Part-1/4)**

Device Name: CXD9509AQ { MID-XA / Fujitsu & SONY } / IC3408 (B-board) / P/N: 8-759-672-57 (SBorSD#: NA)  
 Slave Address: 2EH { Controlled through MID-XA Micro (IC3090/B-board, Slave Address: 64h) / P/N: 6-800-050-01 (SB#: V4216) }  
 MID-XA Micro (MASK type): MB94918RPF-G-137-BND, MID-XA Software: Version 12/08/00, (P/N: 6-800-050-01)

Register No & Name	Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)			
	<b>Settings for P&amp;P (Main)</b>				UHF/VHF & CVideo				YPbPr-480i (DVD)			
					Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid
0	<b>POP</b> Selection of service data tables (Table #: 0~15)			0~15	0	1	2	3	4	5	6	7
1	<b>MHLY</b> Y coefficient code of Horizontal LPF (M)	m_hlpf_ycoef		0~3	1	1	1	1	1	1	1	1
2	<b>MHLC</b> C coefficient code of Horizontal LPF (M)	m_hlpf_cccoef		0~3	3	3	3	3	3	3	3	3
3	<b>MVLY</b> Y coefficient code of Vertical LPF (M)	m_vlpf_ycoef		0~3	0	0	0	0	0	0	0	0
4	<b>MVLC</b> C coefficient code of Vertical LPF (M)	m_vlpf_cccoef		0~3	0	0	0	0	0	0	0	0
5	<b>MHYR</b> Y coreing code of horizontal enhancement (M)	m_henh_ycore		0~3	0	0	0	0	0	0	0	0
6	<b>MHYL</b> Y clipping code of horizontal enhancement (M)	m_henh_yclip		0~3	1	1	1	1	1	1	1	1
7	<b>MHYE</b> Y level code of horizontal enhancement (M)	m_henh_yenh		0~7	4	0	0	0	3	0	0	0
8	<b>MHYO</b> Y coefficient code of horizontal enhancement (M)	m_henh_ycof		0, 1	1	1	1	1	1	1	1	1
9	<b>MHCR</b> C coreing code of horizontal enhancement (M)	m_henh_ccore		0~3	0	0	0	0	0	0	0	0
10	<b>MHCL</b> C clipping code of horizontal enhancement (M)	m_henh_cclip		0~3	1	1	1	1	1	1	1	1
11	<b>MHCE</b> C level code of horizontal enhancement (M)	m_henh_cenh		0~7	0	0	0	0	0	0	0	0
12	<b>MHCO</b> C coefficient code of horizontal enhancement (M)	m_henh_ccof		0, 1	1	1	1	1	1	1	1	1
13	<b>MVYR</b> Y coreing code of vertical enhancement (M)	m_venh_ycore		0~3	0	0	0	0	0	0	2	2
14	<b>MVYL</b> Y clipping code of vertical enhancement (M)	m_venh_yclip		0~3	1	1	1	1	1	1	1	1
15	<b>MVYE</b> Y level code of vertical enhancement (M)	m_venh_yenh		0~7	0	0	0	0	0	0	2	5
16	<b>MVCR</b> C coreing code of vertical enhancement (M)	m_venh_ccore		0~3	0	0	0	0	0	0	0	0
17	<b>MVCL</b> C clipping code of vertical enhancement (M)	m_venh_cclip		0~3	1	1	1	1	1	1	1	1
18	<b>MVCE</b> C level code of vertical enhancement (M)	m_venh_cenh		0~7	0	0	0	0	0	0	0	0

**Note:**  
The same MID5 service data is used for DX1A-2001&2000.

See the next page.

## DX1A-2001&amp;2000 SERVICE LIST (#13): MID5 (Picture Data: MIDE) (Part-2/4)

DX1A-2001&2000 SERVICE LIST (#13): MID5 (Picture Data: MIDE) (Part-2/4)												
Register No & Name		Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Comment		
		YPbPr-480p				YPbPr-1080i						
		Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid			
#0 POP (cont.)		8	9	10	11	12	13	14	15			
#1 MHLY (cont.)		1	1	1	1	1	1	1	1			
#2 MHLC (cont.)		3	3	3	3	3	3	3	3			
#3 MVLY (cont.)		0	0	0	0	0	0	0	0			
#4 MVLC (cont.)		0	0	0	0	0	0	0	0			
#5 MHYR (cont.)		0	0	0	0	0	0	0	0			
#6 MHYL (cont.)		1	1	1	1	1	1	1	1			
#7 MHYE (cont.)		4	0	0	0	4	0	0	0			
#8 MHYO (cont.)		1	1	1	1	1	1	1	1			
#9 MHCR (cont.)		0	0	0	0	0	0	0	0			
#10 MHCL (cont.)		1	1	1	1	1	1	1	1			
#11 MHCE (cont.)		0	0	0	0	0	0	0	0			
#12 MHCO (cont.)		1	1	1	1	1	1	1	1			
#13 MVYR (cont.)		0	0	2	2	0	0	0	0			
#14 MVYL (cont.)		1	1	1	1	1	1	1	1			
#15 MVYE (cont.)		0	0	2	5	0	0	0	0			
#16 MVCR (cont.)		0	0	0	0	0	0	0	0			
#17 MVCL (cont.)		1	1	1	1	1	1	1	1			
#18 MVCE (cont.)		0	0	0	0	0	0	0	0			
<b>Note:</b> The same MID5 service data are used for DX1A-2001&2000.												

## DX1A-2001&amp;2000 SERVICE LIST (#13): MID5 (Picture Data: MIDE) (Part-3/4)

Register No.&Name	Control Register Function & Link	Register Name (Software)	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				
	<b>Settings for P&amp;P (Sub)</b>				<b>UHF/VHF &amp; CV</b>				<b>YPbPr-480i (DVD)</b>				See the next page.
					Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid	
0	<b>POP</b>	Selection of service data tables (Table #: 0~15)		0~15	0	1	2	3	4	5	6	7	
19	<b>SHLY</b>	Y coefficient code of Horizontal LPF (S)	s_hlpf_ycoef	0~7	0	0	0	0	0	0	0	0	
20	<b>SHLC</b>	C coefficient code of Horizontal LPF (S)	s_hlpf_ccoef	0~7	0	0	0	0	0	0	0	0	
21	<b>SVLY</b>	Y coefficient code of Vertical LPF (S)	s_vlpf_ycoef	0~7	0	0	0	0	0	0	0	0	
22	<b>SVLC</b>	C coefficient code of Vertical LPF (S)	s_vlpf_ccoef	0~7	0	0	0	0	0	0	0	0	
23	<b>SHYR</b>	Y coreing code of horizontal enhancement (S)	s_henh_ycore	0~3	0	0	0	0	0	0	0	0	
24	<b>SHYL</b>	Y clipping code of horizontal enhancement (S)	s_henh_yclip	0~3	0	0	0	0	0	0	0	0	
25	<b>SHYE</b>	Y level code of horizontal enhancement (S)	s_henh_yenh	0~7	0	0	0	0	0	0	0	0	
26	<b>SHYO</b>	Y coefficient code of horizontal enhancement (S)	s_henh_ycof	0, 1	0	0	0	0	0	0	0	0	
27	<b>SHCR</b>	C coreing code of horizontal enhancement (S)	s_henh_ccore	0~3	0	0	0	0	0	0	0	0	
28	<b>SHCL</b>	C clipping code of horizontal enhancement (S)	s_henh_cclip	0~3	0	0	0	0	0	0	0	0	
29	<b>SHCE</b>	C level code of horizontal enhancement (S)	s_henh_cenh	0~7	0	0	0	0	0	0	0	0	
30	<b>SHCO</b>	C coefficient code of horizontal enhancement (S)	s_henh_ccof	0, 1	0	0	0	0	0	0	0	0	
31	<b>SVYR</b>	Y coreing code of vertical enhancement (S)	s_venh_ycore	0~3	0	0	0	0	0	0	0	0	
32	<b>SVYL</b>	Y clipping code of vertical enhancement (S)	s_venh_yclip	0~3	0	0	0	0	0	0	0	0	
33	<b>SVYE</b>	Y level code of vertical enhancement (S)	s_venh_yenh	0~7	0	0	0	0	0	0	0	0	
34	<b>SVCR</b>	C coreing code of vertical enhancement (S)	s_venh_ccore	0~3	0	0	0	0	0	0	0	0	
35	<b>SVCL</b>	C clipping code of vertical enhancement (S)	s_venh_cclip	0~3	0	0	0	0	0	0	0	0	
36	<b>SVCE</b>	C level code of vertical enhancement (S)	s_venh_cenh	0~7	0	0	0	0	0	0	0	0	
<b>Note:</b> The same MID5 service data is used for DX1A-2001&2000.													

**DX1A-2001&2000 SERVICE LIST (#13): MID5 (Picture Data: MIDE) (Part-4/4)**

Register No.&Name	Data Initial/Average Setting (32V&36V CRTs)				Data Initial/Average Setting (32V&36V CRTs)				Comment
	YPbPr-480p				YPbPr-1080i				
	Pro	Movie	Standard	Vivid	Pro	Movie	Standard	Vivid	
#0 POP (cont.)	8	9	10	11	12	13	14	15	
#19 SHLY (cont.)	0	0	0	0	0	0	0	0	
#20 SHLC (cont.)	0	0	0	0	0	0	0	0	
#21 SVLY (cont.)	0	0	0	0	0	0	0	0	
#22 SVLC (cont.)	0	0	0	0	0	0	0	0	
#23 SHYR (cont.)	0	0	0	0	0	0	0	0	
#24 SHYL (cont.)	0	0	0	0	0	0	0	0	
#25 SHYE (cont.)	0	0	0	0	0	0	0	0	
#26 SHYO (cont.)	0	0	0	0	0	0	0	0	
#27 SHCR (cont.)	0	0	0	0	0	0	0	0	
#28 SHCL (cont.)	0	0	0	0	0	0	0	0	
#29 SHCE (cont.)	0	0	0	0	0	0	0	0	
#30 SHCO (cont.)	0	0	0	0	0	0	0	0	
#31 SVYR (cont.)	0	0	0	0	0	0	0	0	
#32 SVYL (cont.)	0	0	0	0	0	0	0	0	
#33 SVYE (cont.)	0	0	0	0	0	0	0	0	
#34 SVCR (cont.)	0	0	0	0	0	0	0	0	
#35 SVCL (cont.)	0	0	0	0	0	0	0	0	
#36 SVCE (cont.)	0	0	0	0	0	0	0	0	
<b>Note:</b> The same MID5 service data are used for DX1A-2001&2000.									

**DX1A-2001\* SERVICE LIST (#14): On-Screen Display (OSD)**

Device Name: M306V2ME-153FP (V1.0) { System Micro (MASK type) / Mitsubishi } / IC701 (A-board)

Slave Address: 60h

System Micro (MASK type): M306V2ME-153FP, Sys-Software: Version 1.0, P/N: 6-800-051-01 (SB#: V9091)

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment
0	<b>HPOS</b> OSD horizontal position	C	0~255	23	<u>C</u> : Common data
1	<b>HPOF</b> Horizontal position for Favorite mode	C	0~255	33	
2	<b>VPOS</b> OSD vertical position	C	0~255	5	
3	<b>VPOT</b> Vertical position for P&P (Twin) mode	C	0~255	32	
<b>Note:</b> * This OSD settings are used for DX1A-2001 ONLY. (DX1A-2000 uses two OSD settings based on two versions of system micros.)					

**DX1A-2001&2000 SERVICE LIST (#15): SNNR****Related Control Devices:**

mPD64082 { 3D-Comb / NEC } / IC3501 (BC-board) / Slave Address: B8h

CXA2103Q { Chroma Decoder / SONY } / IC3048 (B-board) / Slave Address: 9Ah (Main)

CXA2150Q { CRT Driver / SONY } / IC201 (A-board) / Slave Address: 86h

Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting 32V&36V CRTs				Comment
0	<b>SNNR</b> SNNR data setting		0~3	0				
1	<b>SNFX</b> Selection of SNNR data settings; 0: Set SNNR automatically according to WSLT value (read data)	C	0, 1	0				C: Comon data
				<b>WSLT Data / Threshold Range</b>				
2	<b>WSLT</b> Noise level detection data thresholds for SNNR data (read data)		0~255	0~30	31~62	63~126	127~255	
	SNNR data used as the (-) offset settings			<b>SNNR Settings Based on WSL Data ( - Offset Data)</b>				
	SNNR = 0/1/2/3 @ WSLT £ 0/31/63/127, respectively		0~3	0	1	2	3	
3	<b>CPFG</b> Related to 3D-COMB (mPD64082) / #19 <b>YPFG</b> settings		-----	0	1	2	3	
4	<b>CPFT</b> Related to 3D-COMB (mPD64082) / #18 <b>YPFT</b> settings		-----	0	0	0	0	
	SNNR data used as the direct settings		-----					
5	<b>CCOR</b> Related to 3D-COMB (mPD64082) / #20 <b>YHCO</b> settings		-----	0	1	1	1	
6	<b>CHCG</b> Related to 3D-COMB (mPD64082) / #21 <b>YHCG</b> settings		-----	1	1	1	1	
	SNNR data used as the (-) offset settings							
7	<b>CAPG</b> Related to 3D-COMB (mPD64082) / #16 <b>VAPG</b> settings		-----	0	0	0	0	
8	<b>3SHP</b> Related to CXA2103 / #6 <b>SHAP</b> settings		-----	0	1	2	3	
9	<b>MIDD</b> Related to CXA2150P-3 / #19 <b>MIDE</b> settings		-----	0	1	2	3	
10	<b>5SHP</b> Related to CXA2150P-4 / #4 <b>USHP</b> settings		-----	0	1	3	4	
11	<b>5YF1</b> Related to CXA2150P-3 / #10 <b>F1LV</b> settings		-----	0	1	2	3	
12	<b>5CDS</b> Related to CXA2150P-3 / #11 <b>CDSP</b> settings		-----	0	0	0	0	
13	<b>5LTI</b> Related to CXA2150P-3 / #12 <b>LTLV</b> settings		-----	0	0	0	0	
14	<b>5CTI</b> Related to CXA2150P-3 / #14 <b>CTLV</b> settings		-----	0	0	0	0	
15	<b>5VML</b> Related to CXA2150P-3 / #1 <b>UVML</b> settings		-----	0	0	0	0	
	SNNR data used as the (+) offset settings			<b>SNNR Settings Based on WSL Data ( + Offset Data)</b>				
16	<b>5VMC</b> Related to CXA2150P-3 / #3 <b>VMCR</b> settings		-----	0	+ 1	+ 2	+ 3	

**Note:**

The same SNNR service data is used for DX1A-2001&amp;2000.

Please refer to the part numbers and SBorSD numbers given in the service list for these devices.

DX1A-2001&2000 SERVICE LIST (#16): ID-1 Detection (ID1)						
Device Name: CXD2085M { ID-1 Decoder / SONY } / IC3603 (B-board) / P/N: 8-752-395-13 (SD#: S98511B)						
Slave Address: 40h						
Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment
0	XJGL	XJGLK: Setting for memorizing or not the ID-1 detection status	C	0, 1	0	C: Common data
1	LNJI	LNJ1: Setting for the multi/single-line ID-1 detection	C	0, 1	0	
<b>Note:</b> The same ID1 service data are used for DX1A-2001&2000. Other servcie controls related to CXD2085 (IDSW & DATA) are lised in Service List (CXA2150P-4) for easier engineering adjustment.						

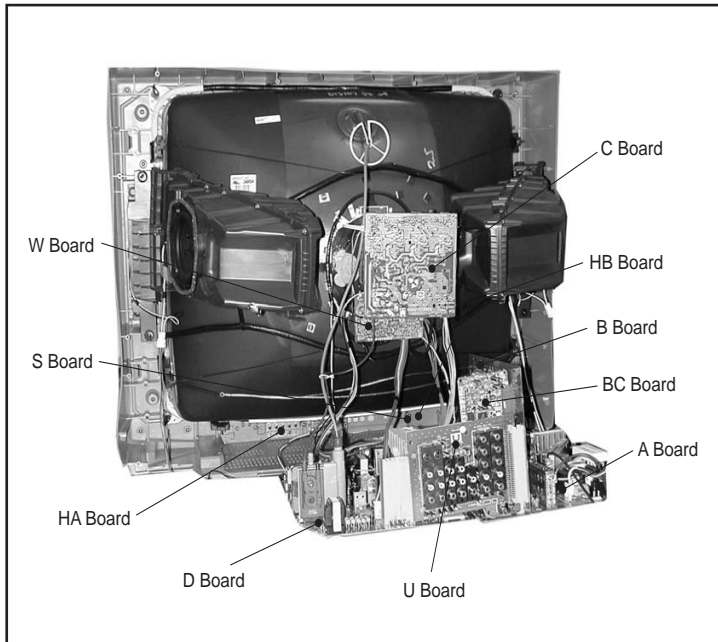
DX1A-2001&2000 SERVICE LIST (#17): Closed Caption Display & Parental Control (CCD&VCHIP)						
Device Name: CXP85840A-039Q { CCD&Vchip Micro (MASK type) / SONY } / IC3602 (Main) & IC3601 (Sub) (B-board) / P/N: 8-752-916-40 (SD#: S97739B)						
Slave Address: 68h (Main) & 6Ch (Sub)						
CCD&Vchip Micro Software: Version 2.14						
Register No & Name	Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment	
0	HPRM	Horizontal position of CCD (Main)	C	0~255	46	C: Common data
1	HPRS	Horizontal position of CCD (Sub)	C	0~255	46	
2	RND	OSD rounding control	C	0, 1	1	
3	CCDI	Interruption control	C	0~7	3	
4	CRIP	CRI count & parity count	C	0~7	4	
5	CRIT	Charge/Discharge timing control for slice voltage level	C	0, 1	0	0: MASK-type micro, 1: OTP-type micro
6	CHMK	Horizontal mask width	C	0~63	42	
7	FPOL	Field polarity selection	C	0, 1	1	
8	LANG		C	0~3	0	
9	DATA	Switch for CCD service/test data	C	0, 1	0	
10	VCHIP	Selection of Vchip controls	C	0, 1	0	
<b>Note:</b> The same CCD&VCHIP service data is used for DX1A-2001&2000.						

DX1A-2001&2000 SERVICE LIST (#18): OPTIONS (OP)						
Device Name: M306V2ME-153FP (V1.0) { System Micro (MASK type) / Mitsubishi } / IC701 (A-board)						
Slave Address: 60h						
System Micro (MASK type): M306V2ME-153FP, Sys-Software: Version 1.0, P/N: 6-800-051-01 (SB#: V9091)						
Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V&36V CRTs)	Comment
0	DLY1	AC-RLY to MAIN-RLY timing = DLY1 x 50 ms	C	0~15	4	C: Common data
1	DLY2	Power-On Mute timing = DLY2 x 50 ms	C	0~31	12	
2	DLY3	DGC-RLY to MAIN-RLY timing = DLY3 x 50 ms	C	0~15	7	
3	RAMW	RAM monitor on/off	C	0, 1	0	
Note: The same OP service data is used for DX1A-2001&2000.						

DX1A-2001* SERVICE LIST (#19): IDENTIFICATION (ID)								
Device Name: M306V2ME-153FP (V1.0) { System Micro (MASK type) / Mitsubishi } / IC701 (A-board)								
Slave Address: 60h								
System Micro (MASK type): M306V2ME-153FP, Sys-Software: Version 1.0, P/N: 6-800-051-01 (SB#: V9091)								
Register No & Name		Control Register Function & Link	Data Type	Data Range	Data Initial/Average Setting (32V/36V/40V CRTs)			Comment
		Shipping Destination-related Settings			KV-32HS20 KV-36HS20 KV-32HS20H	KV-32XBR450 KV-36XBR450 KV-36XBR450H	KV-32XBR450C KV-36XBR450C	
0	ID0	Selection of OSD languages & color systems		0~255	89	89	89	
1	ID1	Selection of composite & s-video inputs		0~255	127	127	127	
2	ID2	Selection of audio-related controls		0~255	239	255	255	
3	ID3	Selection of basic system settings		0~255	98	106	90	
4	ID4	Selection of basic system settings		0~255	203	203	203	
5	ID5	Selection of advanced system settings		0~255	177	177	177	
6	ID6	Selection of sub picture-related settings		0~255	54	54	54	
7	ID7	Selection of some reserved settings		0~255	24	24	24	
<b>Note:</b> * These ID settings are used for DX1A-2001 ONLY. (DX1A-2000 uses different ID settings.) The system micro name, software&patch versions, and the status of NVM devices are displayed only when in this service catgory (#19): ID.								

## SECTION 5: DIAGRAMS

### 5-1. CIRCUIT BOARDS LOCATION



The components identified by shading and  $\triangle$  symbol are critical for safety. Replace only with part number specified.

The symbol  $\blacksquare$  indicates a fast operating fuse and is displayed on the component side of the board. Replace only with fuse of the same rating as marked.

Les composants identifiés par un trame et une marque  $\triangle$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Le symbole  $\blacksquare$  indique une fusible à action rapide. Doit être remplacé par une fusible de même valeur, comme marqué.

The components identified by  $\blacksquare$  in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be necessary, replace only with the value originally used (Refer to Safety Related Adjustments on page 17).

When replacing components identified by  $\blacksquare$ , make the necessary adjustments as indicated. If the results do not meet the specified value, change the component identified by  $\blacksquare$  and repeat the adjustment until the specified value is achieved.

When replacing the parts listed in the table below, it is important to perform the related adjustments.

### 5-2. PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF :  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.

All electrolytics are in 50V unless otherwise specified.

All resistors are in ohms. K = 1000, M = 1000K.

Indication of resistance, which does not have one for rating electrical power, is as follows: Pitch : 5mm

Rating electrical power :  $\frac{1}{4}$  W

$\frac{1}{4}$  W in resistance,  $\frac{1}{10}$  W and  $\frac{1}{8}$  W in chip resistance.

$\text{---}\blacksquare\text{---}$  : nonflammable resistor.

$\text{---}\blacksquare\text{---}$  : fusible resistor.

$\triangle$  : internal component.

$\square$  : panel designation and adjustment for repair.

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

Readings are taken with a color-bar signal input.

Readings are taken with a 10M digital multimeter.

Voltages are DC with respect to ground unless otherwise noted.

Voltage variations may be noted due to normal production tolerances.

All voltages are in V.

S : Measurement impossibility.

--- : B+line.

---  $\text{---}\blacksquare\text{---}$  : B-line. (Actual measured value may be different).

$\Rightarrow$  : signal path. (RF)

Circled numbers are waveform references.

Part Replaced ( $\blacksquare$ )	Adjustment ( $\blacksquare$ )
<b>D BOARD:</b> D8004, D8014, IC6503, IC8001, IC8003, IC8004, R6590, R8016, R8021, R8028, R8041, R8042, R8044, R8072, R8073, R8074, R8077, R8078, R8080, R8081, R8082, R8091, R8095	<b>D BOARD:</b> RV8001, RV8002

### REFERENCE INFORMATION

#### RESISTOR

: RN METAL FILM  
: RC SOLID  
: FPRD NONFLAMMABLE CARBON  
: FUSE NONFLAMMABLE FUSIBLE  
: RW NONFLAMMABLE WIREWOUND  
: RS NONFLAMMABLE METAL OXIDE  
: RB NONFLAMMABLE CEMENT  
:  $\otimes$  ADJUSTMENT RESISTOR

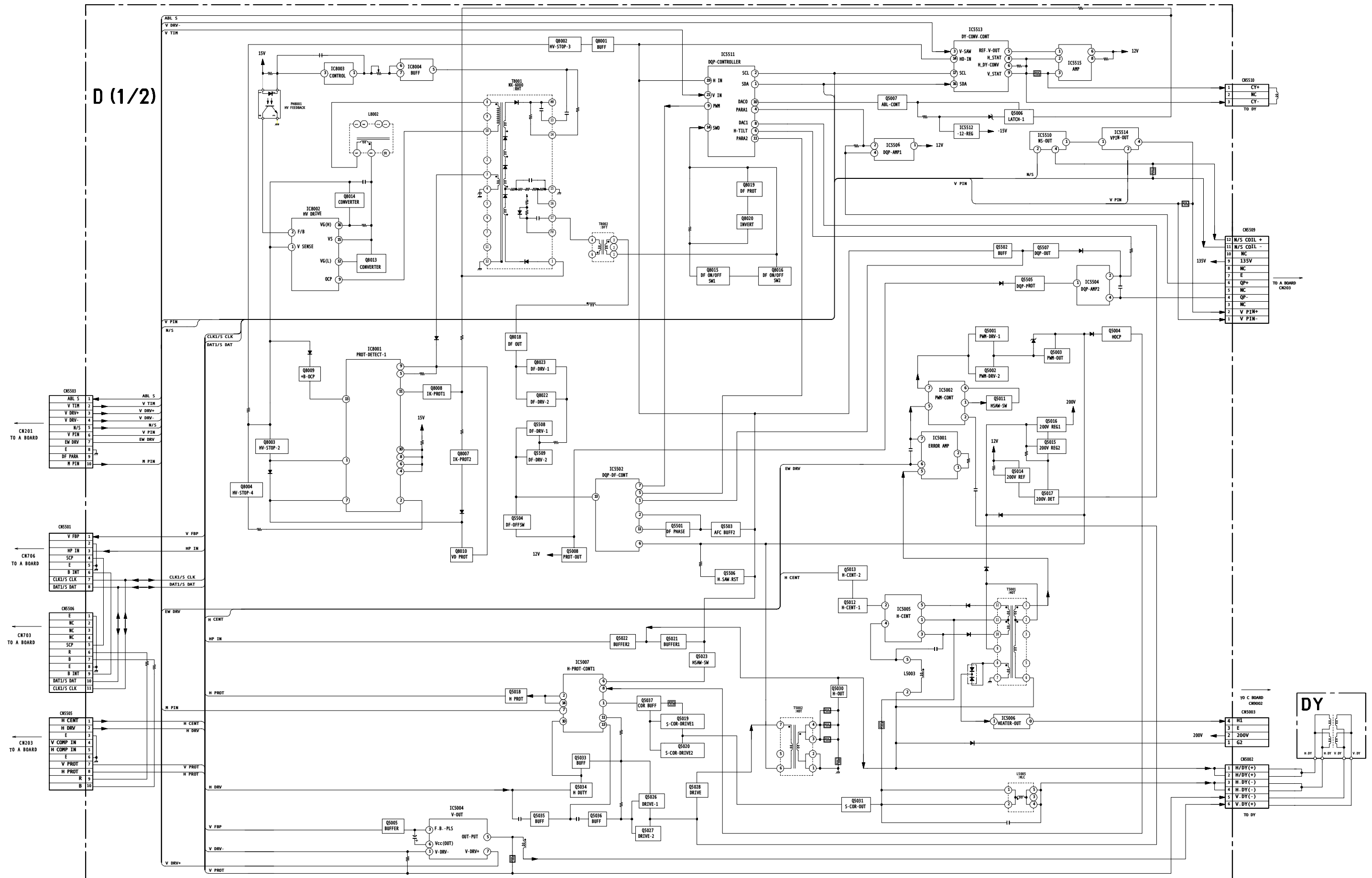
#### CAPACITOR

: TA TANTALUM  
: PS STYROL  
: PP POLYPROPYLENE  
: PT MYLAR  
: MPS METALIZED POLYESTER  
: MPP METALIZED POLYPROPYLENE  
: ALB BIPOLAR  
: ALT HIGH TEMPERATURE  
: ALR HIGH RIPPLE

#### COIL

: LF-8L MICRO INDUCTOR

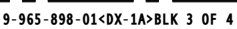
**D (1/2)**



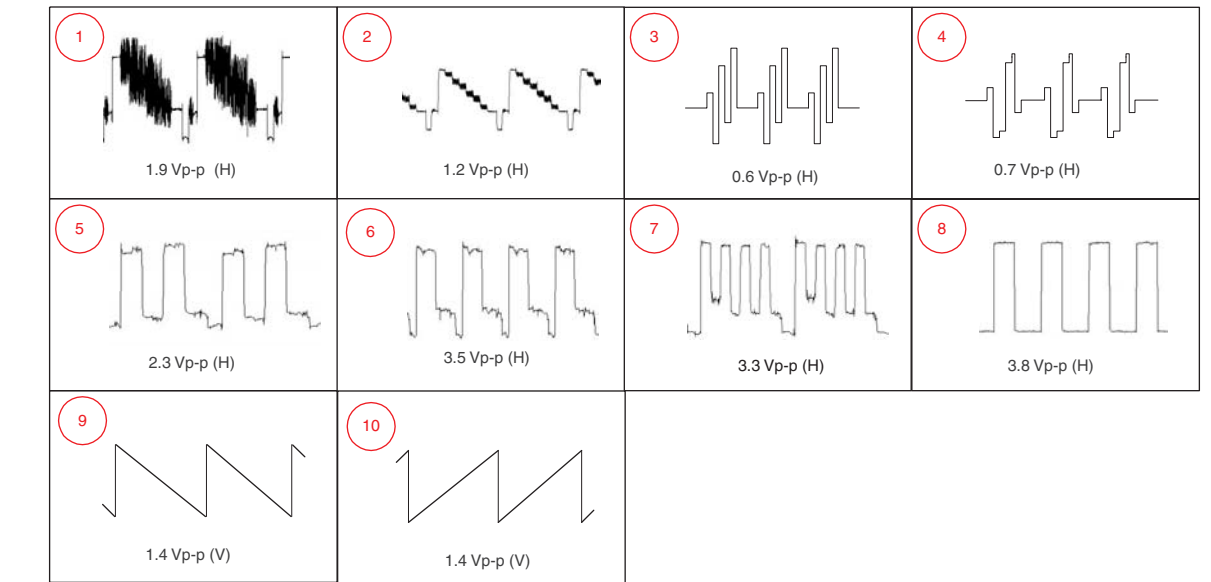


## HB (AUDIO/VIDEO I/O-2 I/O)

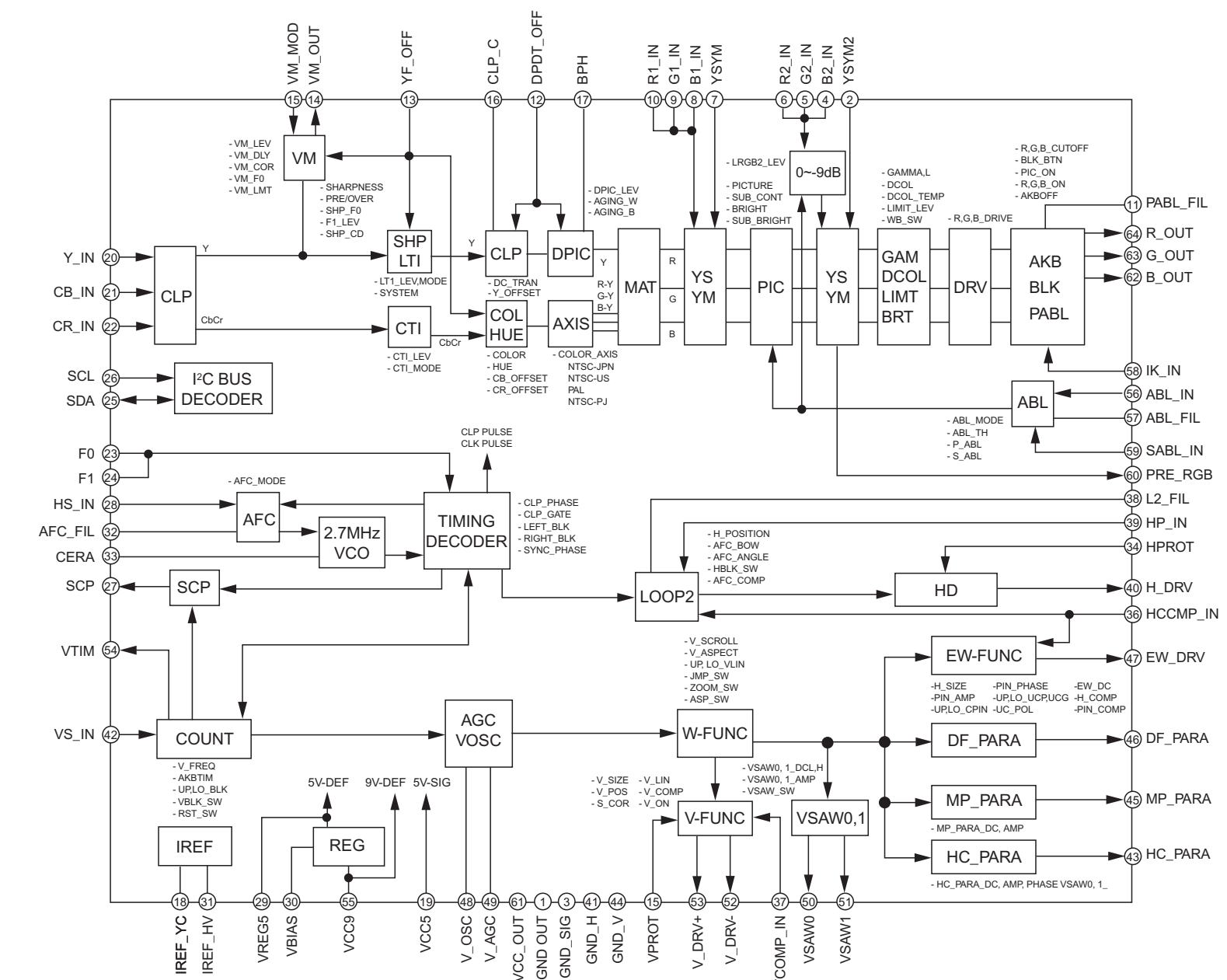
**A (2/2)**  
**POWER SUPPLY**





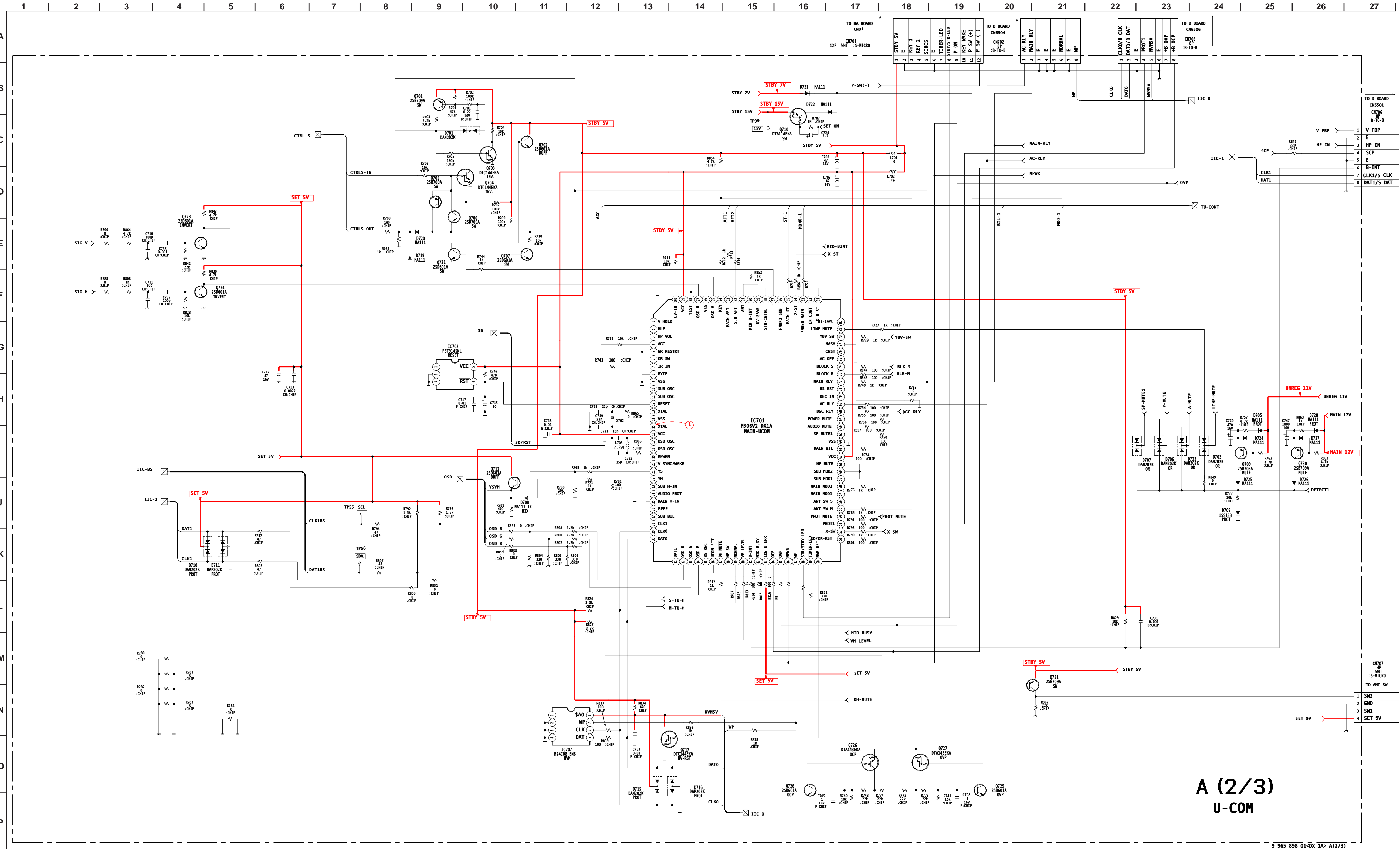


A BOARD: IC CXA2150Q



**A (1/3)**  
**TUNER**  
**CRT DRIVE**

A BOARD SCHEMATIC DIAGRAM (2 OF 3)



A (2/3)  
U-COM

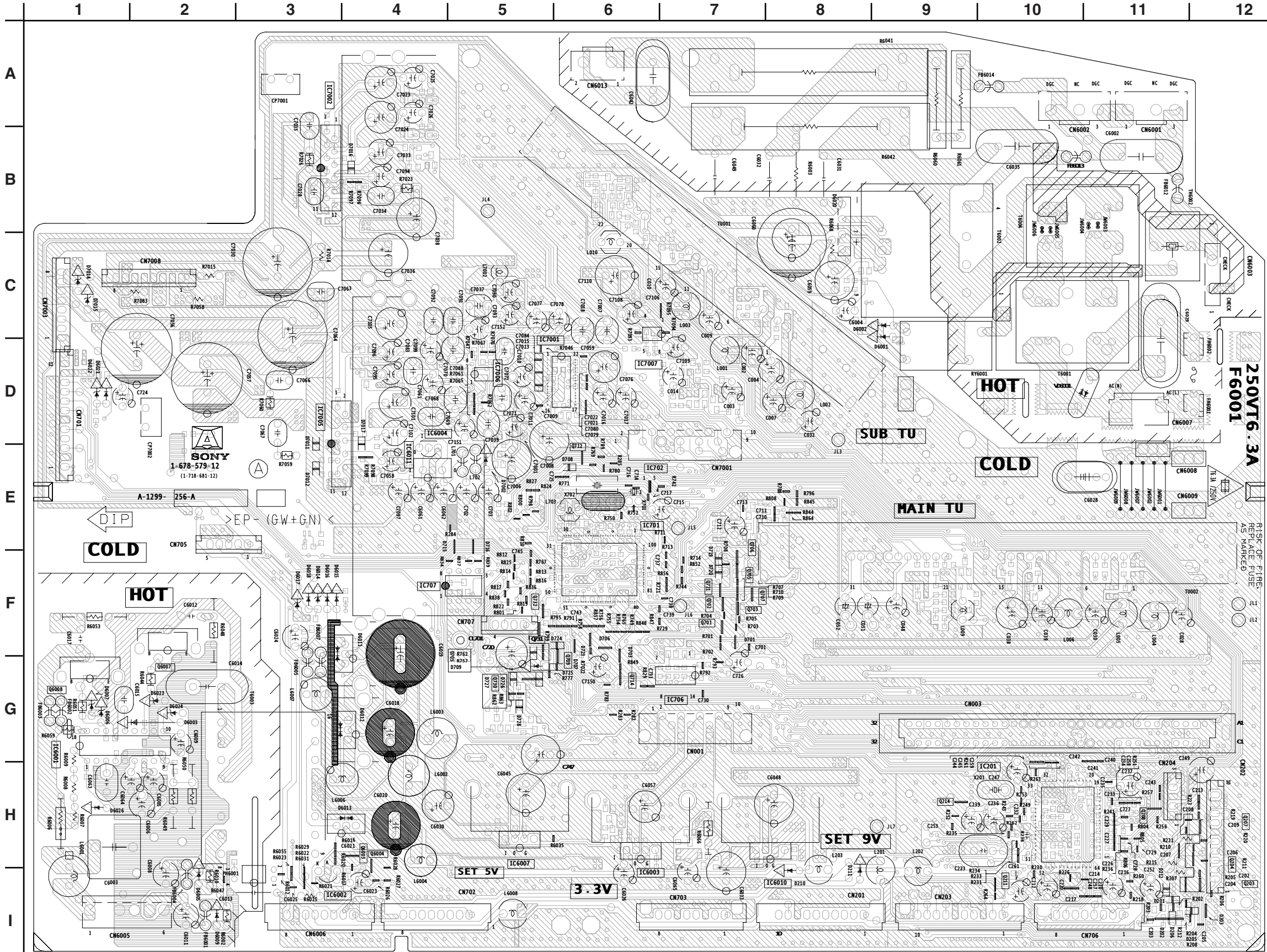


A

[TUNER, CRT DRIVE, U-COM, AC/DC POWER, AUDIO POWER]

KV-32HS20/36HS20/36HS20H/32XBR450/36XBR450/36XBR450H

COMPONENT SIDE



A BOARD LOCATOR LIST  
(COMPONENT SIDE)

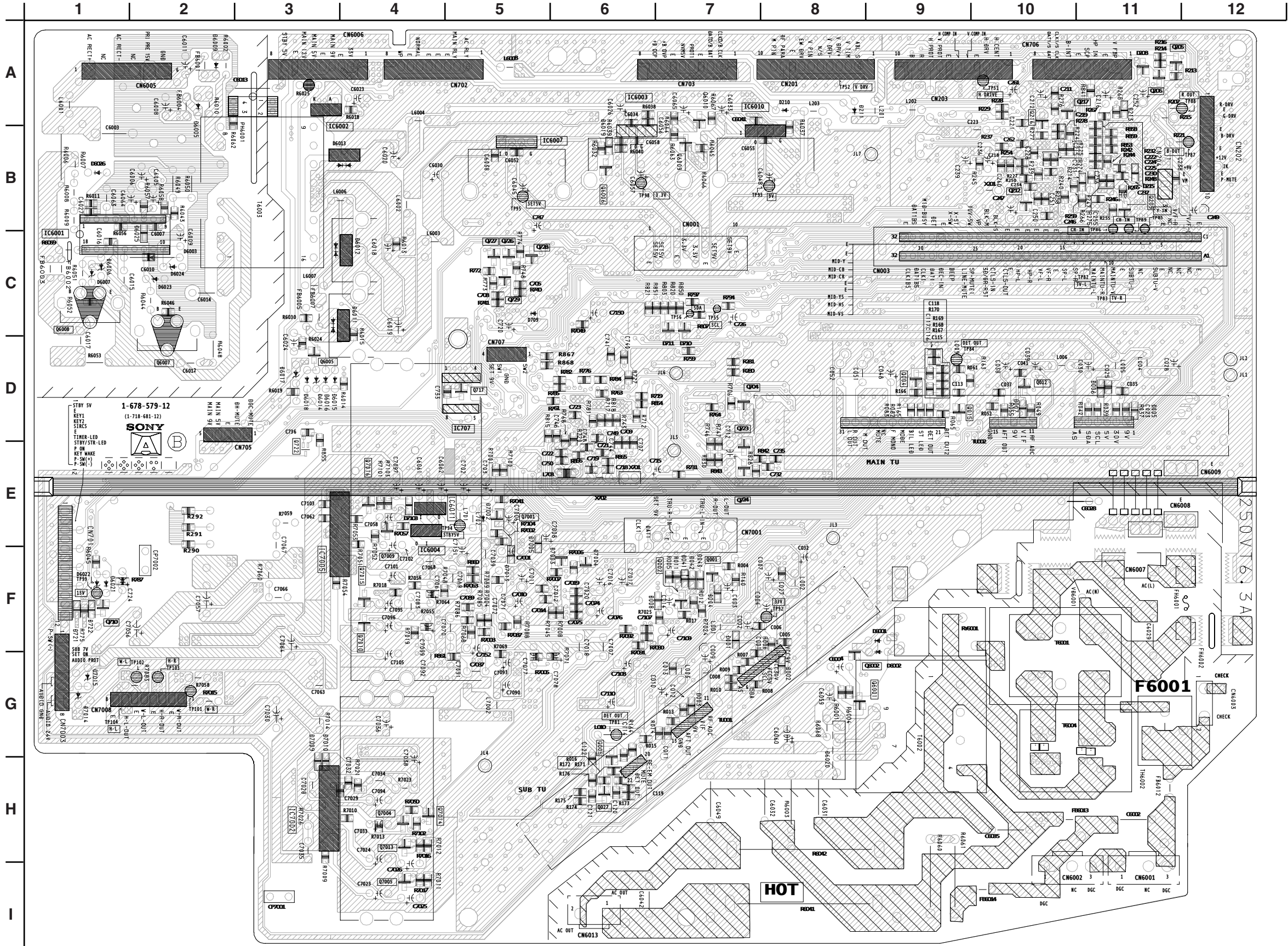
DIODE		IC	
D203	I-12	IC201	H-10
D211	I-8	IC701	E-6
D212	H-8	IC702	E-6
D701	D-4	IC707	F-4
D703	F-6	IC6001	G-1
D705	F-4	IC6002	I-4
D706	F-6	IC6003	I-7
D707	G-6	IC6007	H-5
D708	E-6	IC6010	I-8
D709	G-5	IC6011	E-4
D715	E-4	IC7001	D-6
D716	E-5	IC7002	A-3
D719	F-7	IC7005	D-3
D720	F-7	IC7006	D-5
D723	F-6	IC7007	D-6
D724	F-5	TRANSISTOR	
D725	G-6	Q203	I-12
D726	G-5	Q204	I-12
D727	G-5	Q207	H-12
D728	G-5	Q208	H-11
D6001	C-9	Q211	I-10
D6002	C-8	Q214	H-9
D6003	G-2	Q701	F-7
D6005	I-2	Q702	F-7
D6009	I-2	Q703	F-7
D6011	F-4	Q705	F-7
D6012	G-4	Q706	F-7
D6013	H-4	Q707	F-7
D6014	F-3	Q709	G-6
D6017	F-3	Q712	D-6
D6020	B-8	Q721	F-7
D7002	E-5	Q730	G-5
D7011	D-3	Q731	F-5
D7012	E-3	Q6007	G-2
D7014	C-1	Q6008	G-1
D7015	C-1		
D7016	B-4		
D7017	D-4		

A

[TUNER, CRT DRIVE, U-COM, AC/DC POWER, AUDIO POWER]

KV-32HS20/36HS20/36HS20H/32XBR450/36XBR450/36XBR450H

CONDUCTOR SIDE



A BOARD LOCATOR LIST  
(CONDUCTOR SIDE)

DIODE		Q206	A-11
D004	F-7	Q209	B-11
D008	F-7	Q212	B-10
D214	B-10	Q216	A-10
D215	B-10	Q217	A-11
D710	D-7	Q704	D-8
D711	D-7	Q710	F-1
D721	F-1	Q717	D-5
D722	F-1	Q723	D-7
D6018	D-3	Q724	E-7
D6025	D-3	Q726	C-5
D7003	E-5	Q727	C-5
D7004	E-5	Q728	C-6
D7005	E-5	Q729	C-5
D7009	H-4	Q6001	G-9
D7010	H-4	Q6002	G-10
D7013	F-5	Q6009	B-7
D7103	E-4	Q6010	A-7
TRANSISTOR		Q7001	E-5
Q001	F-7	Q7004	H-4
Q002	F-7	Q7005	I-4
Q004	D-9	Q7009	F-4
Q005	H-6	Q7010	F-4
Q012	D-10	Q7013	H-4
Q015	D-10	Q7014	H-4
Q027	H-6	Q7015	F-4
Q205	A-11	Q7016	

**A BOARD IC VOLTAGE LIST (1 OF 3)**

IC201		14	2.3	29	5.0	44	GND	59	1.7
pin	volt	15	3.7	30	5.6	45	2.8	60	1.7
1	GND	16	2.7	31	1.3	46	3.6	61	9.0
2	0.0	17	2.6	32	3.0	47	3.9	62	2.3
3	GND	18	1.1	33	1.6	48	4.4	63	2.5
4	3.1	19	4.9	34	0.0	49	5.4	64	2.3
5	3.1	20	3.6	35	0.0	50	3.5	All voltages are in V.	
6	3.1	21	3.4	36	0.2	51	3.8		
7	0.0	22	3.4	37	0.0	52	3.4		
8	3.6	23	GND	38	3.2	53	3.5		
9	3.6	24	N/C	39	1.1	54	1.0		
10	3.6	25	4.6	40	2.8	55	9.0		
11	0.0	26	4.6	41	GND	56	1.0		
12	0.5	27	0.7	42	0.0	57	4.3		
13	0.5	28	0.0	43	3.8	58	3.9		

**A BOARD TRANSISTOR VOLTAGE LIST (1 OF 3)**

	B	C	E
Q001	0.4	0.0	GND
Q002	0.4	0.0	GND
Q004	4.6	1.1	5.0
Q005	4.3	9.0	3.6
Q012	0.1	7.5	GND
Q015	6.2	9.0	5.5
Q027	4.5	0.0	5.0
Q203	2.3	GND	3.2
Q204	2.5	GND	3.2
Q205	2.3	3.4	GND
Q206	3.4	4.1	3.5
Q207	2.3	GND	3.2
Q208	2.3	GND	3.2
Q209	0.8	2.2	GND
Q211	2.8	11.5	2.3
Q212	5.6	9.0	5.0
Q214	0.0	0.0	GND
Q216	4.5	GND	3.9
Q217	4.4	8.7	3.9

All voltages are in V.

**A BOARD IC VOLTAGE LIST (2 OF 3)**

IC701		17	0.0	35	N/C	53	3.0	71	N/C	89	0.0	5	4.9
pin	volt	18	0.0	36	0.0	54	0.0	72	6.3	90	0.0	IC707	
1	N/C	19	0.0	37	4.6	55	0.0	73	0.0	91	0.0	pin	volt
2	N/C	20	2.8	38	0.0	56	0.0	74	0.0	92	0.0	1	GND
3	0.0	21	0.0	39	0.0	57	N/C	75	GND	93	0.0	2	GND
4	0.0	22	0.0	40	0.0	58	0.0	76	0.0	94	4.6	3	GND
5	0.0	23	0.0	41	2.3	59	0.0	77	0.0	95	4.6	4	GND
6	0.0	24	GND	42	0.0	60	0.0	78	0.0	96	GND	5	4.6
7	4.7	25	0.0	43	4.6	61	0.0	79	0.0	97	4.6	6	4.6
8	GND	26	N/C	44	2.8	62	4.9	80	N/C	98	GND	7	5.0
9	GND	27	N/C	45	0.1	63	4.9	81	0.0	99	4.9	8	5.0
10	N/C	28	4.4	46	0.0	64	GND	82	0.0	100	4.6	All voltages are in V.	
11	N/C	29	4.9	47	4.6	65	0.0	83	0.0	IC702			
12	4.9	30	4.9	48	5.0	66	N/C	84	0.0	pin	volt		
13	2.3	31	4.4	49	5.0	67	0.0	85	0.0	1	N/C		
14	GND	32	0.0	50	0.0	68	0.0	86	N/C	2	GND		
15	2.4	33	0.0	51	5.0	69	7.3	87	0.0	3	GND		
16	4.9	34	0.0	52	0.0	70	0.0	88	0.0	4	4.9		

All voltages are in V.

**A BOARD TRANSISTOR VOLTAGE LIST (2 OF 3)**

	<b>B</b>	<b>C</b>	<b>E</b>
Q701	4.7	4.7	5.0
Q702	0.1	5.0	0.0
Q703	4.6	5.0	GND
Q704	0.0	4.4	GND
Q705	5.0	0.0	0.0
Q706	5.0	0.0	0.0
Q707	0.5	0.0	GND
Q709	10.4	0.7	10.2
Q710	19.5	0.0	19.9
Q712	0.0	5.0	0.0
Q717	0.0	5.0	GND
Q719	0.6	4.5	GND
Q720	4.5	0.0	4.5
Q721	0.0	0.0	GND
Q723	0.2	4.6	GND
Q724	0.5	4.6	GND
Q731	0.0	0.0	5.0

All voltages are in V.

**A BOARD IC VOLTAGE LIST (3 OF 3)**

<b>IC6001</b>		14	160.6	<b>IC6007</b>		<b>IC7001</b>		14	1.9	29	4.4	10	0.0	11	4.2
pin	volt	15	150.4	pin	volt	pin	volt	15	9.0	30	4.5	11	4.1	12	10.5
1	3.3	16	154.6	I	6.3	1	GND	16	9.0	31	2.8	12	10.5	<b>IC7006</b>	
2	1.8	17	N/C	G	GND	2	0.0	17	4.5	32	4.4	<b>IC7005</b>		pin	volt
3	2.2	18	303.1	O	5.0	3	4.5	18	4.6	<b>IC7002</b>		pin	volt	1	4.5
4	2.5	<b>IC6002</b>		<b>IC6010</b>		4	4.4	19	1.9	pin	volt	1	1.6	2	4.5
5	GND	pin	volt	pin	volt	5	4.4	20	0.8	1	1.6	2	0.0	3	4.5
6	0.0	1	7.3	I	10.9	6	4.4	21	4.4	2	0.0	3	0.0	4	GND
7	4.6	2	GND	G	GND	7	4.4	22	4.4	3	0.0	4	0.0	5	4.5
8	17.3	3	2.5	O	9.0	8	4.4	23	4.4	4	0.0	5	1.6	6	4.5
9	0.0	<b>IC6003</b>		<b>IC6011</b>		9	4.4	24	4.4	5	1.6	6	8.0	7	4.5
10	10.4	pin	volt	pin	volt	10	4.4	25	4.4	6	8.0	7	11.0	8	9.0
11	GND	I	5.7	I	8.1	11	4.4	26	4.4	7	4.0	8	5.0	All voltages are in V.	
12	4.7	G	GND	G	GND	12	4.4	27	4.4	8	5.0	9	23.7		
13	N/C	O	3.3	O	5.0	13	0.8	28	4.4	9	23.7	10	0.0		

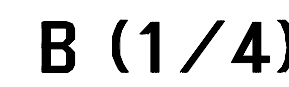
**A BOARD TRANSISTOR VOLTAGE LIST (3 OF 3)**

	<b>B</b>	<b>C</b>	<b>E</b>
Q6001	0.0	18.0	GND
Q6002	19.7	18.5	19.8
Q6003	-0.5	0.0	GND
Q7001	0.3	0.0	0.0
Q7002	-0.1	9.0	GND
Q7003	9.0	0.0	9.0
Q7004	0.3	8.0	GND
Q7005	0.0	0.0	GND
Q7009	0.3	8.0	GND
Q7010	0.0	0.7	GND
Q7011	0.0	-0.1	0.0
Q7014	0.0	4.1	GND
Q7016	0.0	4.2	GND







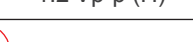
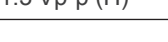
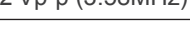





All voltages are in V.

	<b>D</b>	<b>G</b>	<b>S</b>
Q6007	150.4	4.7	0.0
Q6008	303.0	154.6	150.0

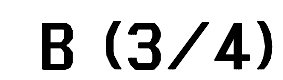
All voltages are in V.




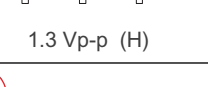



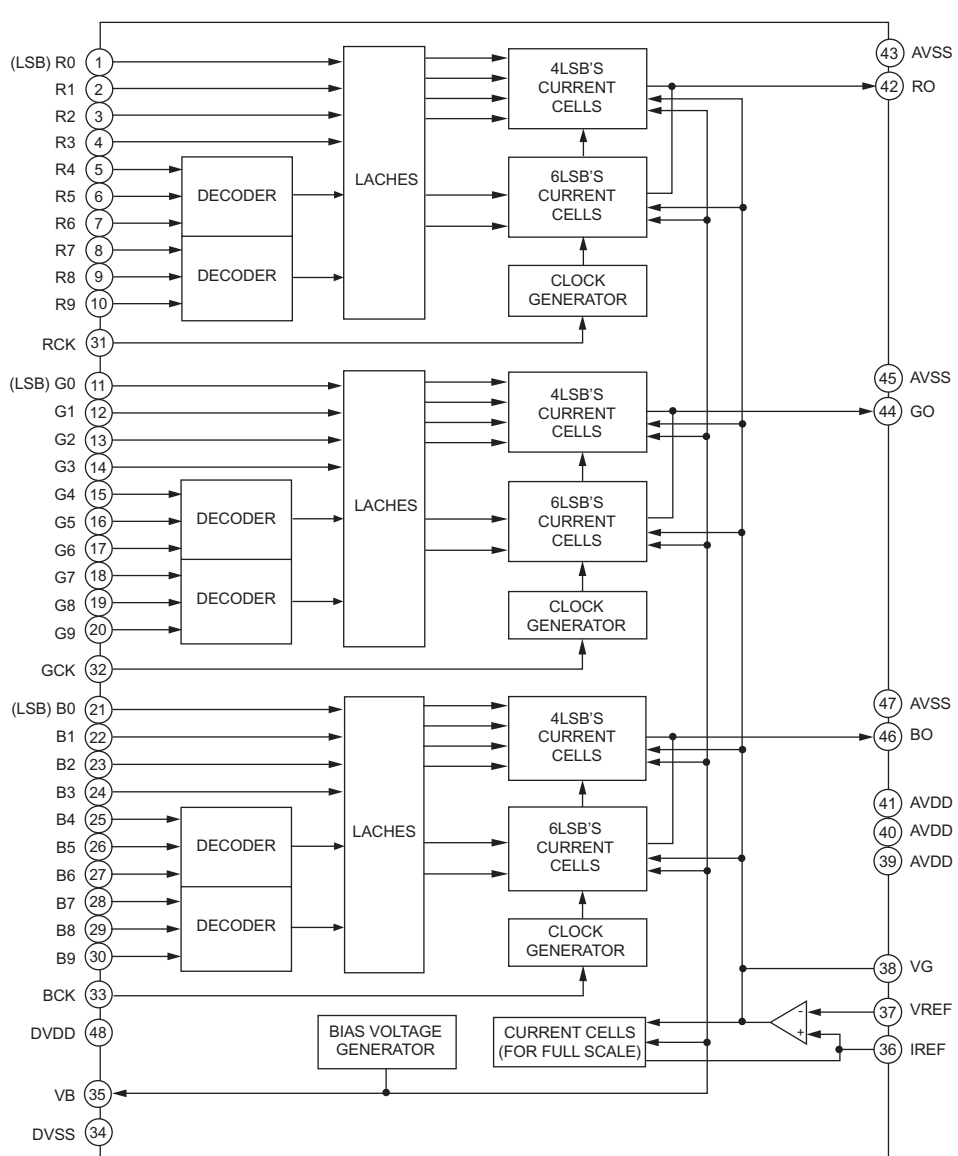


<p>1</p>  <p>3.5 Vp-p (V)</p>	<p>2</p>  <p>3.7 Vp-p (H)</p>	<p>3</p>  <p>1.5 Vp-p (H)</p>
<p>4</p>  <p>1.2 Vp-p (H)</p>	<p>5</p>  <p>1.3 Vp-p (H)</p>	<p>6</p>  <p>0.2 Vp-p (3.58MHz)</p>
<p>7</p>  <p>1.2 Vp-p (H)</p>	<p>8</p>  <p>0.8 Vp-p (H)</p>	<p>9</p>  <p>4.8 Vp-p (14.3MHz)</p>
<p>10</p>  <p>1.0 Vp-p (H)</p>	<p>11</p>  <p>2.4 Vp-p (20MHz)</p>	<p>12</p>  <p>1.5 Vp-p (H)</p>
<p>13</p>  <p>1.3 Vp-p (H)</p>	<p>14</p>  <p>1.3 Vp-p (H).</p>	

[illegible]



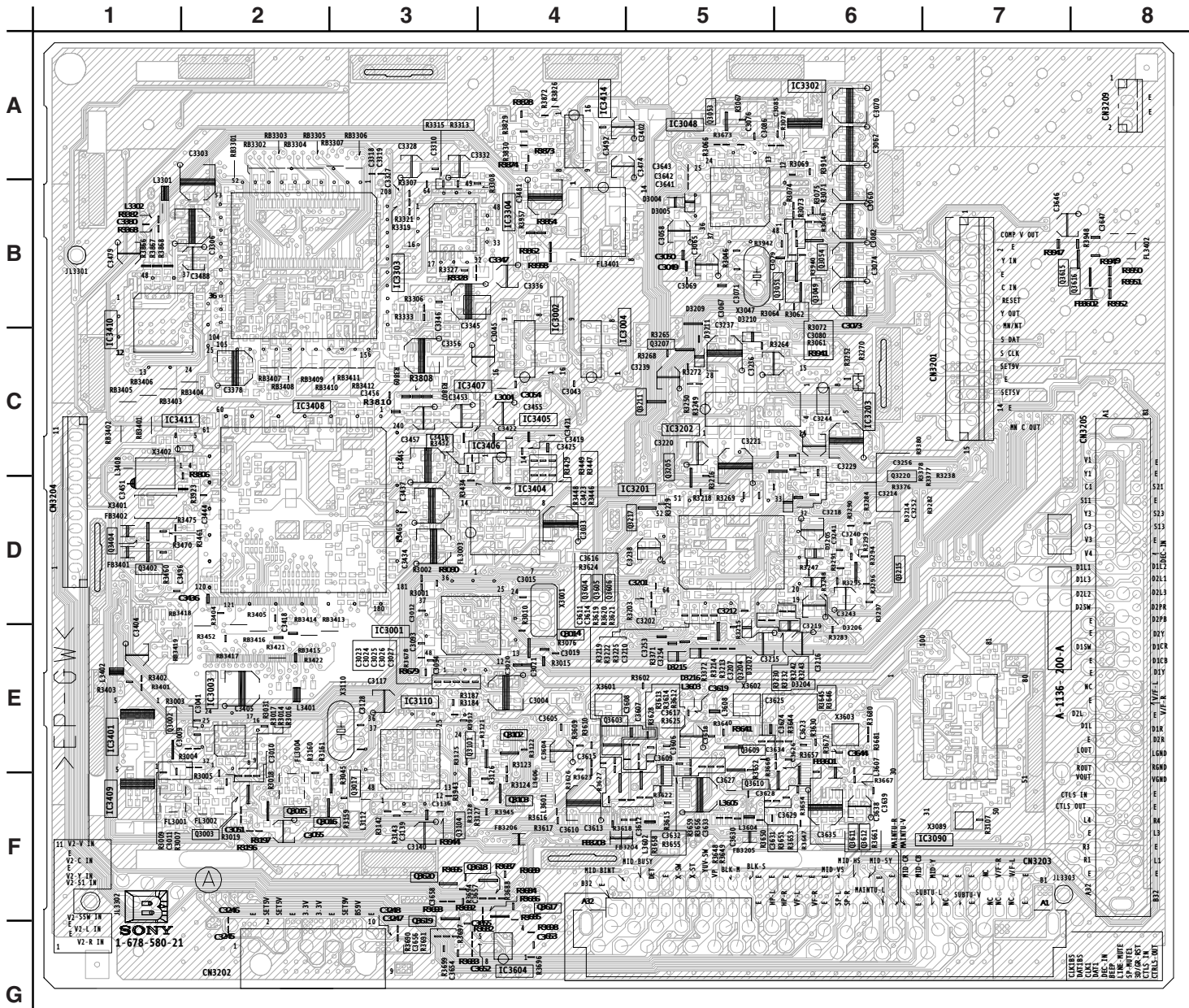
<p>1</p>  <p>1.3 Vp-p (H)</p>	<p>2</p>  <p>1.5 Vp-p (H)</p>	<p>3</p>  <p>1.1 Vp-p (H)</p>
<p>4</p>  <p>3.3 Vp-p (V)</p>	<p>5</p>  <p>3.5 Vp-p (H)</p>	



B

[ AV-SW1, AUDIO SW, MID-UCOM, YCT-MAIN, MAIN-CCD V-CHIP, SUB-CCD V-CHIP, 3CH 8 BIT A/D, DRC-MF, MID-XA, A/D]

COMPONENT SIDE

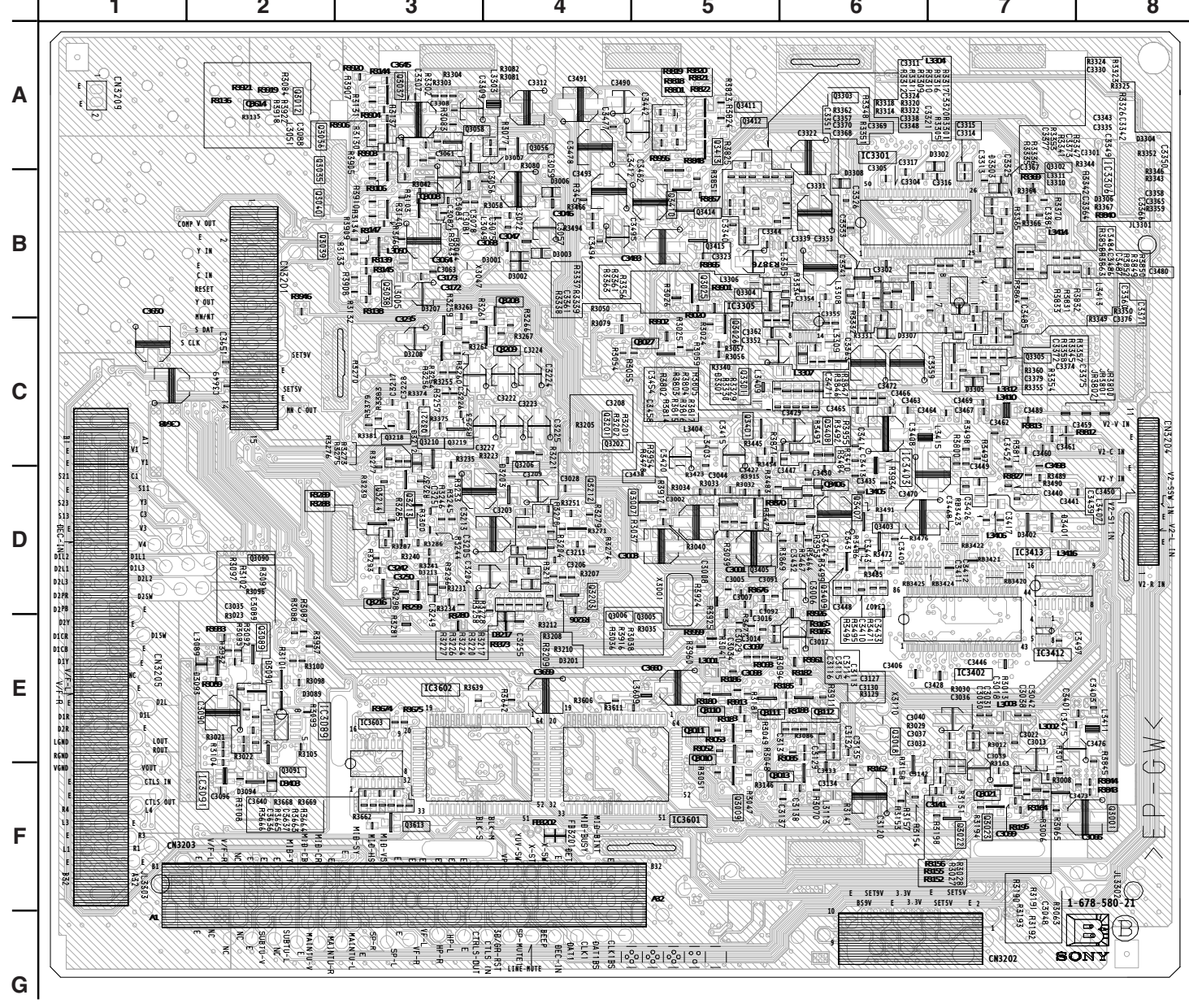


B BOARD LOCATOR LIST  
(COMPONENT SIDE)

DIODE	IC	IC3302	A-6	IC3411	C-2	Q3051	B-6	Q3215	D-6	Q3612	F-6
D3004	B-5	IC3001	E-3	IC3303	B-3	IC3414	A-4	Q3053	A-5	Q3217	D-5
D3005	B-5	IC3002	B-4	IC3304	B-4	IC3604	G-4	Q3054	B-6	Q3402	D-1
D3202	E-5	IC3003	E-2	IC3401	E-1	TRANSISTOR	Q3101	E-4	Q3404	D-1	Q3619
D3204	E-6	IC3004	C-5	IC3404	D-4	Q3002	E-1	Q3102	E-4	Q3603	E-4
D3205	D-6	IC3048	A-5	IC3405	C-4	Q3003	F-2	Q3103	F-4	Q3604	D-4
D3206	E-6	IC3090	F-7	IC3406	C-4	Q3014	E-4	Q3104	F-3	Q3605	D-4
D3209	B-5	IC3110	E-3	IC3407	C-4	Q3015	F-2	Q3204	E-5	Q3606	D-4
D3210	B-5	IC3201	D-5	IC3408	C-2	Q3016	F-2	Q3205	C-5	Q3609	E-5
D3211	B-5	IC3202	C-5	IC3409	F-1	Q3017	F-3	Q3207	C-5	Q3610	F-5
D3214	D-6	IC3203	C-6	IC3410	C-1	Q3049	B-6	Q3211	C-5	Q3611	F-6

KV-32HS20/36HS20/36HS20H/32XBR450/36XBR450/36XBR450H

CONDUCTOR SIDE



B BOARD LOCATOR LIST  
(CONDUCTOR SIDE)

DIODE		IC		Q3005	E-5	Q3036	A-2	Q3203	D-4	Q3405	D-5
D3001	B-4	IC3089	E-2	Q3006	E-5	Q3037	A-3	Q3206	C-4	Q3406	D-6
D3002	B-4	IC3091	F-2	Q3007	D-5	Q3038	B-3	Q3208	B-4	Q3407	D-6
D3003	B-4	IC3301	B-6	Q3008	B-3	Q3039	B-2	Q3209	C-4	Q3408	C-6
D3006	B-4	IC3305	B-5	Q3009	F-5	Q3040	B-2	Q3210	C-3	Q3409	D-6
D3007	B-4	IC3306	B-8	Q3010	E-5	Q3056	A-4	Q3213	D-3	Q3410	B-5
D3089	E-2	IC3402	E-7	Q3011	E-5	Q3058	A-3	Q3214	D-3	Q3411	A-5
D3090	E-2	IC3403	C-6	Q3018	E-6	Q3089	E-2	Q3216	D-3	Q3412	A-5
D3201	E-4	IC3412	E-8	Q3021	F-7	Q3090	D-2	Q3301	C-5	Q3413	A-5
D3212	C-3	IC3413	D-7	Q3022	F-7	Q3091	F-2	Q3302	A-7	Q3414	B-5
D3213	D-3	IC3601	F-5	Q3023	F-7	Q3110	E-5	Q3303	A-6	Q3415	B-5
D3301	C-5	IC3602	E-3	Q3025	B-5	Q3111	E-5	Q3304	B-5	Q3613	F-3
D3401	D-7	IC3603	E-3	Q3026	B-5	Q3112	E-6	Q3305	C-7		
D3402	D-7	TRANSISTOR		Q3027	B-5	Q3201	C-4	Q3401	C-5		
D3403	F-2	Q3001	F-8	Q3035	B-2	Q3202	C-4	Q3403	D-6		

### B BOARD TRANSISTOR VOLTAGE LIST (1 OF 4)

	B	C	E
Q3201	4.6	2.9	2.5
Q3202	2.7	9.0	2.3
Q3203	3.1	GND	3.7
Q3204	1.8	GND	2.2
Q3205	4.4	9.0	3.8
Q3206	4.9	9.0	4.3
Q3207	8.9	-1.0	8.9
Q3208	-0.3	0	GND
Q3209	-0.3	0	GND
Q3210	2.7	GND	3.1
Q3211	0.4	8.9	GND
Q3213	3.8	7.9	3.2
Q3214	7.9	5.8	8.5
Q3215	8.5	0	9.0
Q3216	0.1	4.9	0
Q3217	3.6	9.0	3.1

All voltages are in V.

### B BOARD TRANSISTOR VOLTAGE LIST (3 OF 4)

	B	C	E
Q3301	3.9	4.9	3.4
Q3302	4.9	4.9	3.4
Q3303	0.5	4.9	0.1
Q3304	0.5	4.9	0.2
Q3305	3.2	GND	2.3

All voltages are in V.

### B BOARD TRANSISTOR VOLTAGE LIST (4 OF 4)

	B	C	E
Q3401	0	4.9	0
Q3402	3.3	4.6	3.1
Q3403	1.0	4.9	0.5
Q3404	3.3	4.6	3.1
Q3405	2.3	GND	3.0
Q3406	2.3	GND	3.0
Q3407	1.7	4.9	1.2
Q3408	2.3	GND	3.0
Q3409	1.7	4.9	1.2
Q3410	0.5	GND	1.2
Q3411	1.5	GND	2.2
Q3412	1.5	GND	2.2
Q3413	1.5	GND	2.2
Q3414	0.8	GND	1.5
Q3415	1.4	GND	2.0

All voltages are in V.

### B BOARD TRANSISTOR VOLTAGE LIST (2 OF 4)

	B	C	E
Q3001	4.1	9.0	3.4
Q3002	5.1	9.0	5.7
Q3003	1.8	GND	5.4
Q3005	2.2	4.9	1.6
Q3006	2.9	4.9	2.2
Q3007	2.9	4.8	2.3
Q3008	1.0	GND	1.6
Q3009	2.0	GND	0
Q3010	2.0	GND	0
Q3011	1.2	GND	0
Q3014	2.7	GND	3.3
Q3015	1.0	GND	1.6
Q3016	1.1	GND	1.7
Q3017	4.1	4.8	0.7
Q3018	1.5	4.1	0.9
Q3021	2.9	9.0	0.7
Q3022	7.9	9.0	0
Q3023	0.7	7.9	0.3
Q3025	2.5	5.0	1.4
Q3026	2.7	5.0	1.4
Q3027	2.8	5.0	1.4
Q3035	5.1	9.0	4.3
Q3036	5.1	9.0	4.3
Q3037	5.1	9.0	4.3
Q3038	4.9	9.0	4.1
Q3039	4.9	9.0	4.1
Q3040	4.9	9.0	4.1
Q3049	5.3	8.9	4.7
Q3051	2.3	GND	3.0
Q3053	2.0	GND	2.6
Q3054	5.7	8.9	5.1
Q3056	2.1	GND	2.8
Q3058	1.9	GND	2.5
Q3089	4.1	4.7	4.7
Q3090	4.1	4.7	4.7
Q3091	0	8.9	GND
Q3101	3.7	9.0	3.1
Q3102	2.8	9.0	2.2
Q3103	1.1	GND	1.7
Q3104	1.5	GND	2.1
Q3110	0.8	GND	1.5
Q3111	1.2	GND	1.8
Q3112	1.2	GND	1.8
Q3603	1	4.9	0.3
Q3604	0	9.0	0
Q3605	0	9.0	0
Q3606	0	9.0	0
Q3609	1.9	4.9	1.3
Q3610	0	9.0	0
Q3611	0	9.0	0
Q3612	0	9.0	0
Q3613	3.7	4.9	3.0
Q3617	0.5	4.7	GND
Q3618	0.2	4.7	GND
Q3619	0.5	0.1	GND
Q3620	0.2	0.2	GND

All voltages are in V.

**B BOARD IC VOLTAGE LIST (1 OF 4)**

<b>IC3201</b>		26	4.4	53	3.8	14	4.4
pin	volt	27	0.1	54	4.5	15	4.4
1	3.9	28	4.9	55	N/C	16	4.4
2	4.4	29	N/C	56	3.4	17	4.4
3	3.9	30	N/C	57	GND	18	4.4
4	4.4	31	N/C	58	4.3	19	4.4
5	4.4	32	GND	59	4.4	20	N/C
6	0.1	33	4.4	60	3.9	21	N/C
7	4.9	34	4.6	61	4.4	22	N/C
8	4.0	35	0.0	62	4.4	23	4.4
9	4.5	36	N/C	63	4.8	24	4.4
10	4.4	37	N/C	64	4.4	25	4.4
11	4.5	38	4.5	<b>IC3202</b>		26	GND
12	4.4	39	N/C	pin	volt	27	4.6
13	N/C	40	4.5	1	GND	28	4.6
14	N/C	41	4.5	2	4.4	<b>IC3203</b>	
15	4.4	42	9.0	3	9.0	pin	volt
16	4.4	43	4.5	4	4.4	1	4.4
17	3.9	44	4.4	5	4.4	2	4.4
18	4.4	45	4.5	6	4.4	3	4.4
19	4.4	46	N/C	7	N/C	4	GND
20	0.1	47	4.4	8	N/C	5	4.4
21	4.9	48	N/C	9	N/C	6	4.4
22	4.3	49	4.1	10	4.4	7	4.4
23	4.4	50	4.5	11	4.4	8	9.0
24	3.9	51	4.4	12	4.4	All voltages are in V.	
25	4.4	52	4.5	13	4.4		

**B BOARD IC VOLTAGE LIST (2 OF 4)**

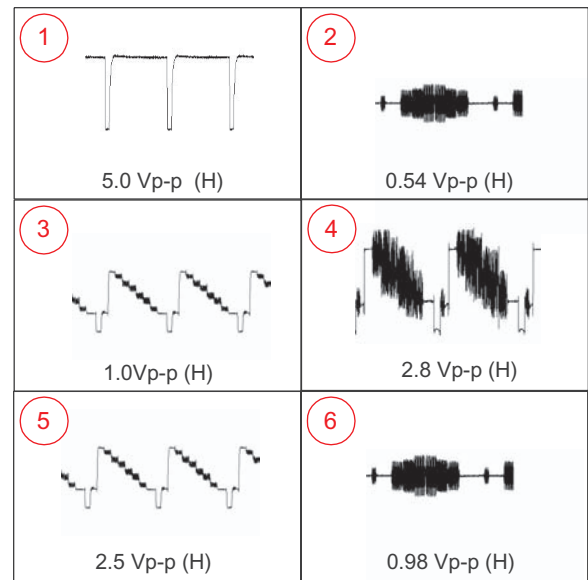
<b>IC3001</b>		13	2.6	7	4.9	11	N/C	75	GND	30	N/C	44	N/C		GND
pin	volt	14	2.7	8	2.8	12	N/C	76	N/C	31	N/C	45	N/C	43	GND
1	3.2	15	2.5	9	N/C	13	N/C	77	N/C	32	4.8	46	N/C	44	N/C
2	3.2	16	4.9	10	N/C	14	N/C	78	N/C	33	N/C	47	N/C	45	N/C
3	3.2	<b>IC3003</b>		11	2.3	15	N/C	79	N/C	34	N/C	48	4.6	46	N/C
4	1.2	pin	volt	12	N/C	16	N/C	80	N/C	35	N/C	49	N/C	47	N/C
5	1.0	1	1.0	13	GND	17	N/C	81	N/C	36	2.6	50	4.6	48	4.6
6	GND	2	0.0	14	N/C	18	N/C	82	N/C	37	N/C	51	N/C	49	N/C
7	N/C	3	4.8	15	0.5	19	N/C	83	GND	38	N/C	52	N/C	50	4.6
8	N/C	4	1.0	16	2.4	20	N/C	84	GND	39	N/C	53	N/C	51	N/C
9	N/C	5	N/C	17	2.0	21	N/C	85	GND	40	1.7	54	N/C	52	N/C
10	1.0	6	4.8	18	3.1	22	N/C	86	GND	41	1.8	55	N/C	53	N/C
11	0.9	7	0.5	19	N/C	23	N/C	87	N/C	42	2.4	56	N/C	54	N/C
12	4.8	8	0.0	20	0.5	24	N/C	88	N/C	43	0.0	57	N/C	55	GND
13	4.0	9	1.9	21	0.0	25	GND	89	5.0	44	2.4	58	N/C	56	GND
14	4.0	10	2.6	22	1.8	26	GND	90	GND	45	3.4	59	N/C	57	GND
15	2.7	11	0.9	23	2.1	27	N/C	91	N/C	46	2.4	60	N/C	58	GND
16	2.3	12	2.0	24	2.0	28	N/C	92	N/C	47	4.8	61	N/C	59	GND
17	1.0	13	GND	25	3.4	29	N/C	93	GND	48	3.1	62	N/C	60	GND
18	2.8	14	0.0	26	3.4	30	N/C	94	N/C	<b>IC3601</b>		63	N/C	61	N/C
19	0.0	15	GND	27	3.4	31	N/C	95	2.9	pin	volt	64	N/C	62	N/C
20	2.7	16	GND	28	0.0	32	0.0	96	0.0	1	N/C	<b>IC3602</b>		63	N/C
21	0.0	17	0.0	29	N/C	33	0.0	97	2.9	2	N/C	pin	volt	64	N/C
22	0.3	18	0.0	30	N/C	34	N/C	98	4.3	3	N/C	1	N/C	<b>IC3603</b>	
23	0.0	19	4.9	31	N/C	35	N/C	99	2.9	4	N/C	2	N/C	pin	volt
24	GND	20	N/C	32	4.8	36	N/C	100	4.3	5	N/C	3	N/C	1	4.9
25	2.9	21	4.9	33	3.4	37	N/C	<b>IC3091</b>		6	N/C	4	N/C	2	GND
26	2.8	22	0.0	34	3.1	38	N/C	pin	volt	7	0.2	5	N/C	3	GND
27	2.2	23	N/C	35	0.0	39	N/C	1	N/C	8	0.1	6	N/C	4	1.4
28	4.8	24	GND	36	2.6	40	N/C	2	GND	9	4.9	7	0.2	5	4.9
29	GND	25	2.4	37	3.4	41	0.0	3	GND	10	GND	8	0.1	6	1.9
30	4.6	26	4.8	38	3.1	42	0.0	4	4.9	11	2.4	9	4.9	7	1.6
31	4.6	27	2.2	39	3.1	43	5.0	5	4.9	12	2.1	10	GND	8	GND
32	GND	28	2.2	40	1.7	44	0.0	<b>IC3110</b>		13	GND	11	2.4	9	4.6
33	3.1	29	4.8	41	1.7	45	GND	pin	volt	14	GND	12	2.2	10	4.6
34	3.1	30	GND	42	2.4	46	GND	1	1.0	15	GND	13	GND	11	4.9
35	3.1	31	GND	43	0.0	47	GND	2	4.6	16	4.9	14	GND	12	2.6
36	3.2	32	1.0	44	N/C	48	N/C	3	4.6	17	4.9	15	GND	13	2.4
37	3.2	<b>IC3004</b>		45	3.1	49	N/C	4	4.6	18	GND	16	4.9	14	GND
38	3.3	pin	volt	46	2.8	50	N/C	5	GND	19	GND	17	GND	15	N/C
39	2.4	1	0.6	47	4.8	51	N/C	6	N/C	20	1.6	18	GND	16	N/C
40	4.8	2	0.5	48	3.1	52	N/C	7	4.9	21	2.4	19	GND	All voltages are in V.	
41	3.1	3	0.5	<b>IC3089</b>		53	0.0	8	2.6	22	1.5	20	1.7		
42	3.1	4	0.5	pin	volt	54	N/C	9	N/C	23	4.9	21	2.5		
43	3.1	5	GND	1	GND	55	0.0	10	N/C	24	0.0	22	2.5		
44	3.3	6	GND	2	GND	56	N/C	11	2.4	25	N/C	23	4.9		
45	3.2	7	GND	3	0.0	57	0.0	12	N/C	26	N/C	24	N/C		
46	3.2	8	GND	4	GND	58	N/C	13	GND	27	N/C	25	N/C		
47	2.4	9	4.9	5	4.6	59	N/C	14	N/C	28	N/C	26	N/C		
48	GND	10	4.9	6	4.6	60	N/C	15	0.5	29	N/C	27	N/C		
<b>IC3002</b>		11	0.0	7	4.9	61	N/C	16	N/C	30	N/C	28	N/C		
pin	volt	12	0.3	8	4.9	62	N/C	17	1.6	31	0.0	29	N/C		
1	2.4	13	0.6	<b>IC3090</b>		63	N/C	18	2.8	32	0.0	30	N/C		
2	0.0	14	0.3	pin	volt	64	N/C	19	N/C	33	0.0	31	0.0		
3	2.7	15	0.6	1	0.0	65	2.6	20	0.5	34	0.0	32	0.0		
4	2.8	16	4.9	2	0.0	66	N/C	21	0.0	35	N/C	33	0.0		
5	0.0	<b>IC3048</b>		3	0.0	67	N/C	22	1.2	36	0.0	34	0.0		
6	GND	pin	volt	4	N/C	68	N/C	23	2.0	37	N/C	35	N/C		
7	GND	1	1.7	5	N/C	69	N/C	24	1.9	38	2.4	36	0.0		
8	GND	2	0.2	6	N/C	70	N/C	25	3.4	39	2.4	37	N/C		
9	4.9	3	4.6	7	N/C	71	N/C	26	3.4	40	4.9	38	2.4		
10	4.9	4	4.6	8	N/C	72	N/C	27	3.4	41	4.9	39	2.4		
11	4.9	5	GND	9	0.0	73	GND	28	N/C	42	GND	40	4.9		
12	0.1	6	N/C	10	0.0	74	5.0	29	N/C	43	GND	41	4.9		

**B BOARD IC VOLTAGE LIST (3 OF 4)**

IC3301		IC3302		45	N/C	98	N/C	151	2.3	204	GND	47	0.0
pin	volt	pin	volt	46	0.0	99	N/C	152	2.3	205	GND	48	1.5
1	3.3	I	3.3	47	0.0	100	0.0	153	2.0	206	GND	49	0.0
2	1.5	G	GND	48	0.0	101	N/C	154	1.2	207	3.3	50	0.0
3	1.6	O	1.2	49	0.0	102	0.2	155	GND	208	GND	51	4.8
4	GND	VC	3.3	50	3.3	103	2.2	156	1.6	IC3304		52	4.4
5	1.5	N/C		51	GND	104	GND	157	3.3	pin	volt	53	2.4
6	1.5	IC3303		52	2.2	105	0.4	158	N/C	1	1.6	54	2.4
7	3.3	pin	volt	53	GND	106	1.0	159	N/C	2	0.0	55	1.6
8	1.9	1	2.2	54	3.3	107	1.0	160	0.8	3	0.0	56	0.5
9	GND	2	1.9	55	GND	108	1.0	161	0.9	4	0.0	57	0.0
10	1.8	3	GND	56	0.0	109	0.5	162	0.0	5	0.0	58	3.3
11	1.2	4	GND	57	GND	110	2.2	163	GND	6	1.2	59	3.3
12	3.3	5	GND	58	GND	111	3.3	164	1.4	7	1.2	60	1.6
13	0.5	6	GND	59	0.0	112	GND	165	1.9	8	0.0	61	3.2
14	3.2	7	1.9	60	GND	113	0.5	166	1.8	9	1.9	62	4.8
15	3.2	8	2.0	61	0.0	114	3.3	167	1.9	10	0.1	63	2.1
16	3.2	9	2.0	62	3.3	115	GND	168	1.9	11	0.8	64	0.0
17	3.2	10	0.3	63	3.3	116	2.2	169	1.9	12	2.0	IC3305	
18	3.2	11	1.9	64	3.3	117	0.0	170	1.9	13	1.6	pin	volt
19	0.0	12	GND	65	GND	118	GND	171	1.3	14	3.3	1	3.4
20	0.0	13	0.6	66	GND	119	N/C	172	2.2	15	0.0	2	GND
21	0.0	14	1.0	67	3.3	120	N/C	173	GND	16	3.3	3	1.6
22	0.0	15	1.9	68	GND	121	N/C	174	1.5	17	0.0	4	0.2
23	0.0	16	1.3	69	0.0	122	1.4	175	1.6	18	3.2	5	1.3
24	0.0	17	1.0	70	3.3	123	1.3	176	1.3	19	3.2	6	1.4
25	3.3	18	1.0	71	GND	124	1.4	177	1.0	20	3.2	7	GND
26	GND	19	1.2	72	3.3	125	1.4	178	2.3	21	3.2	8	N/C
27	0.0	20	1.0	73	3.3	126	1.0	179	0.7	22	3.2	9	GND
28	0.0	21	1.2	74	2.2	127	0.9	180	1.6	23	2.0	10	GND
29	0.0	22	GND	75	GND	128	1.1	181	0.8	24	1.1	11	GND
30	0.0	23	3.3	76	GND	129	0.9	182	2.2	25	GND	12	1.4
31	0.0	24	GND	77	GND	130	GND	183	GND	26	4.8	13	2.2
32	0.0	25	0.8	78	3.3	131	N/C	184	N/C	27	2.4	14	3.4
33	N/C	26	0.8	79	3.3	132	N/C	185	N/C	28	2.4	IC3306	
34	3.3	27	0.6	80	GND	133	1.6	186	N/C	29	3.2	pin	volt
35	1.7	28	1.2	81	3.3	134	1.6	187	GND	30	4.8	1	4.2
36	0.5	29	0.7	82	3.3	135	2.2	188	GND	31	2.4	2	GND
37	N/C	30	0.9	83	GND	136	2.2	189	GND	32	GND	3	1.9
38	3.3	31	1.0	84	GND	137	2.2	190	GND	33	1.5	4	3.3
39	1.6	32	0.9	85	3.3	138	2.1	191	GND	34	0.0	5	1.6
40	1.6	33	3.3	86	GND	139	2.2	192	GND	35	3.3	6	2.2
41	GND	34	GND	87	GND	140	1.1	193	GND	36	N/C	7	GND
42	1.5	35	0.0	88	GND	141	2.2	194	GND	37	N/C	8	N/C
43	1.5	36	0.0	89	GND	142	GND	195	GND	38	0.0	9	GND
44	3.3	37	0.0	90	GND	143	3.3	196	GND	39	0.0	10	GND
45	1.8	38	0.0	91	N/C	144	GND	197	2.2	40	0.0	11	GND
46	2.0	39	0.0	92	N/C	145	N/C	198	GND	41	0.0	12	2.3
47	GND	40	0.0	93	GND	146	N/C	199	GND	42	0.0	13	2.1
48	1.7	41	0.0	94	2.2	147	1.6	200	GND	43	0.0	14	4.2
49	1.2	42	0.0	95	1.0	148	1.6	201	GND	44	0.0	All voltages are in V.	
50	GND	43	2.2	96	2.0	149	2.2	202	GND	45	4.9		
		44	GND	97	1.3	150	2.4	203	GND	46	0.0		

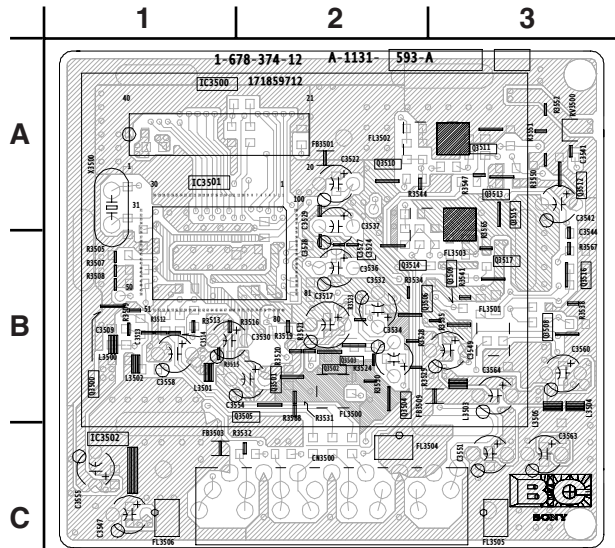
**B BOARD IC VOLTAGE LIST (4 OF 4)**

<b>IC3401</b>		50	1.0	13	3.6	34	1.4	92	3.3	150	GND	208	1.0	17	2.4	15	GND		
pin	volt	51	1.6	14	4.8	35	1.4	93	3.0	151	0.9	209	2.4	18	0.7	16	4.9		
I	3.3	52	GND	<b>IC3405</b>		36	2.4	94	3.0	152	2.2	210	1.0	19	1.0	<b>IC3414</b>			
G	GND	53	0.9	pin	volt	37	1.8	95	GND	153	2.4	211	GND	20	0.8	pin	volt		
O	1.2	54	0.9	1	4.8	38	GND	96	3.3	154	0.7	212	N/C	21	GND	1	4.6		
VC	3.3	55	3.3	2	0.3	39	1.4	97	GND	155	1.3	213	N/C	22	GND	2	5.0		
NC		56	1.1	3	GND	40	1.4	98	3.3	156	2.5	214	2.4	23	1.4	3	3.1		
<b>IC3402</b>		57	NC	4	0.3	41	1.5	99	1.1	157	1.8	215	1.0	24	1.5	4	GND		
pin	volt	58	GND	5	4.8	42	2.4	100	0.9	158	1.1	216	GND	25	1.5	5	3.1		
1	3.3	59	2.4	<b>IC3406</b>		43	GND	101	2.5	159	2.8	217	GND	26	1.5	6	3.1		
2	1.8	60	0	pin	volt	44	0.8	102	GND	160	1.6	218	GND	27	1.5	7	5.0		
3	3.3	61	2.4	1	4.8	45	1.0	103	0.9	161	0.7	219	GND	28	1.5	8	4.6		
4	1.3	62	2.2	2	0	46	0.7	104	1.6	162	2.5	220	GND	29	1.5	9	4.6		
5	0.9	63	1.7	3	GND	47	2.4	105	1.0	163	GND	221	1.2	30	1.9	10	GND		
6	GND	64	1.7	4	0	48	0.9	106	1.4	164	2.5	222	GND	31	1.6	11	4.6		
7	2.4	65	1.8	5	4.8	49	1.0	107	3.3	165	0.7	223	GND	32	1.7	12	5.0		
8	2.2	66	0.1	<b>IC3407</b>		50	1.1	108	1.7	166	1.3	224	GND	33	1.6	13	8.9		
9	3.3	67	2.9	pin	volt	51	1.2	109	1.7	167	1.8	225	GND	34	GND	14	4.6		
10	0.9	68	1.8	1	4.8	52	1.9	110	1.1	168	0.9	226	GND	35	1.0	15	GND		
11	2.8	69	NC	2	1.0	53	1.4	111	1.7	169	1.1	227	GND	36	0	16	4.6		
12	GND	70	NC	3	GND	54	3.3	112	0.9	170	1.1	228	GND	37	2.0	All voltages are in V.			
13	0.9	71	0.1	4	2.4	55	GND	113	1.7	171	GND	229	GND	38	2.6				
14	NC	72	GND	5	4.8	56	1.6	114	3.3	172	GND	230	GND	39	4.8				
15	3.3	73	NC	<b>IC3408</b>		57	1.6	115	GND	173	GND	231	GND	40	4.8				
16	0.1	74	1.8	pin	volt	58	1.5	116	1.6	174	3.3	232	GND	41	4.8				
17	3.1	75	3.3	1	GND	59	1.5	117	1.3	175	GND	233	GND	42	1.0				
18	2.9	76	1.3	2	GND	60	1.5	118	1.6	176	GND	234	GND	43	0				
19	3.3	77	0.7	3	NC	61	1.4	119	1.7	177	GND	235	GND	44	0.5				
20	2.8	78	GND	4	NC	62	2.4	120	0	178	GND	236	GND	45	0				
21	NC	79	2.5	5	NC	63	0.9	121	2.4	179	GND	237	GND	46	0				
22	1.7	80	0.7	6	3.3	64	0.8	122	2.2	180	GND	238	GND	47	0				
23	1.7	81	3.3	7	GND	65	0.9	123	1.7	181	GND	239	GND	48	4.8				
24	0.1	82	1.0	8	GND	66	3.3	124	1.7	182	GND	240	GND	<b>IC3411</b>					
25	0.1	83	2.8	9	0	67	GND	125	1.8	183	GND	<b>IC3409</b>		pin	volt				
26	2.3	84	GND	10	0.2	68	0.8	126	3.3	184	GND	pin	volt	1	3.2				
27	0.1	85	1.1	11	0	69	0.6	127	GND	185	GND	I	3.3	2	NC				
28	2.4	86	GND	12	0	70	0.9	128	0.1	186	GND	G	3.3	3	3.2				
29	3.3	<b>IC3403</b>		13	0	71	0.9	129	0.1	187	GND	O	2.5	4	GND				
30	NC	pin	volt	14	0	72	3.2	130	2.3	188	GND	VC	1.2	5	0.0				
31	1.7	1	NC	15	0	73	3.2	131	0.1	189	GND	NC	0	6	3.3				
32	GND	2	GND	16	2.3	74	0.9	132	0.1	190	GND	<b>IC3410</b>		7	0				
33	1.6	3	GND	17	1.6	75	GND	133	1.7	191	GND	pin	volt	8	3.3				
34	1.3	4	1.7	18	3.3	76	3.3	134	1.7	192	GND	1	GND	<b>IC3413</b>					
35	3.3	5	2.5	19	GND	77	2.5	135	2.8	193	3.3	2	GND	pin	volt				
36	1.6	<b>IC3404</b>		20	0.6	78	GND	136	GND	194	2.4	3	0.9	1	GND				
37	1.7	pin	volt	21	1.1	79	1.7	137	1.6	195	2.4	4	0.9	2	GND				
38	GND	1	4.8	22	2.2	80	3.3	138	3.3	196	0	5	0.6	3	0.1				
39	0.9	2	GND	23	2.2	81	NC	139	GND	197	2.4	6	0.8	4	0.1				
40	1.7	3	2.3	24	2.4	82	2.5	140	1.5	198	GND	7	0.9	5	0.3				
41	3.3	4	0.3	25	2.4	83	2.3	141	0	199	1.0	8	0.8	6	GND				
42	1.1	5	2.4	26	2.3	84	0.4	142	2.6	200	NC	9	0.9	7	GND				
43	3.3	6	0.9	27	2.2	85	0	143	3.0	201	0	10	2.4	8	GND				
44	GND	7	GND	28	1.6	86	0	144	3.1	202	1.0	11	GND	9	5.0				
45	1.7	8	NC	29	0.9	87	2.3	145	2.5	203	GND	12	GND	10	5.0				
46	GND	9	0	30	GND	88	1.6	146	0	204	GND	13	1.2	11	5.0				
47	1.7	10	GND	31	1.1	89	2.5	147	0	205	NC	14	1.1	12	0				
48	1.4	11	GND	32	1.0	90	GND	148	0.9	206	2.4	15	1.0	13	0				
49	3.3	12	0.9	33	1.5	91	1.2	149	2.8	207	GND	16	0.9	14	0				

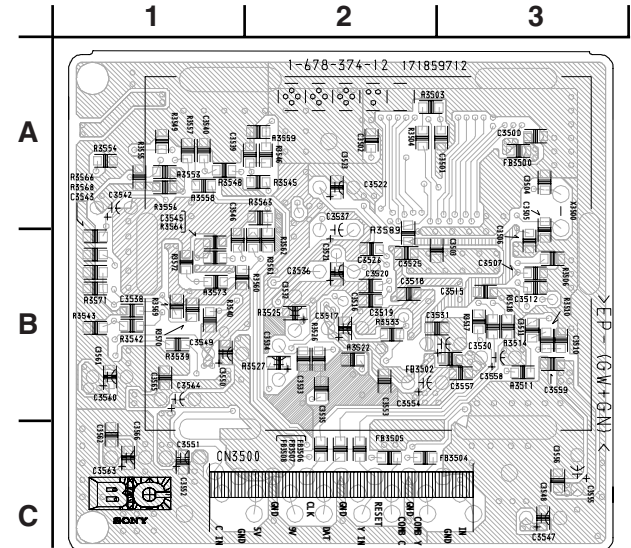




## COMPONENT SIDE



## CONDUCTOR SIDE



## BC BOARD LOCATOR LIST

IC		Q3506	B-3
IC3500	A-1	Q3508	B-3
IC3501	A-1	Q3509	B-3
IC3502	C-1	Q3510	A-2
TRANSISTOR		Q3511	A-3
Q3500	B-1	Q3512	A-3
Q3501	B-2	Q3513	A-3
Q3502	B-2	Q3514	B-2
Q3503	B-2	Q3515	A-3
Q3504	B-2	Q3516	B-3
Q3505	C-2	Q3517	B-3

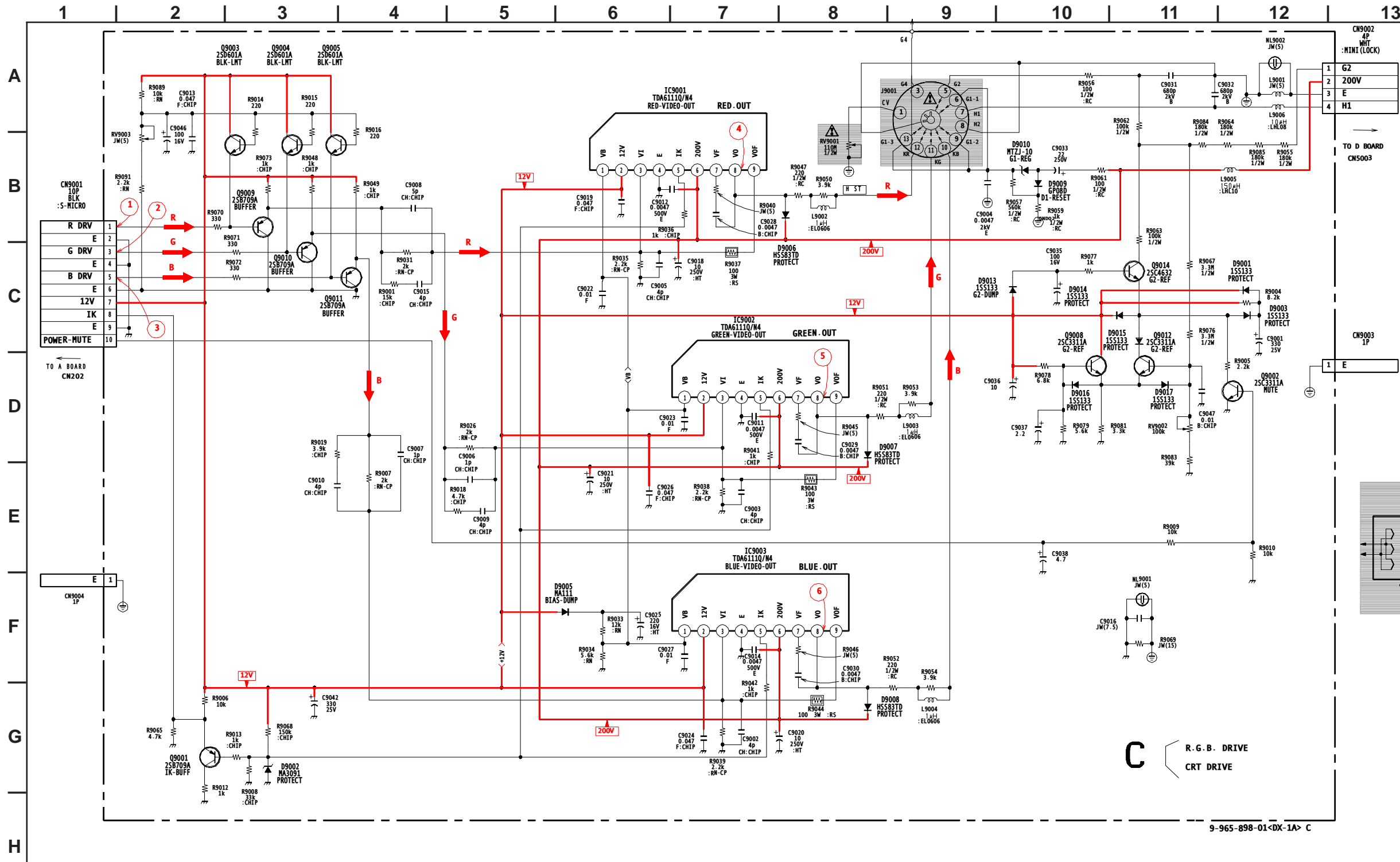
## BC BOARD TRANSISTOR VOLTAGE LIST

	B	C	E		B	C	E
Q3500	1.7	GND	2.3	Q3510	1.7	GND	2.3
Q3501	0.1	4.2	GND	Q3511	2.9	8.9	2.3
Q3502	4.6	0.4	4.9	Q3512	2.3	6.1	1.7
Q3503	3.3	4.7	4.0	Q3513	6.1	8.9	5.5
Q3504	3.3	GND	4.0	Q3514	1.6	GND	2.3
Q3505	4.3	8.9	3.6	Q3515	2.9	8.9	2.3
Q3506	6.0	8.9	5.3	Q3516	2.3	6.4	1.7
Q3508	2.4	8.9	1.8	Q3517	6.4	8.9	5.7
Q3509	1.6	GND	2.3				

All voltages are in V.

## BC BOARD IC VOLTAGE LIST

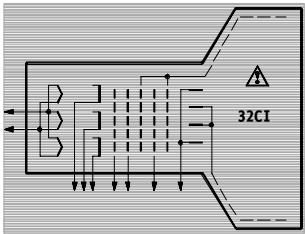
IC3500		18	1.5	37	1.8	14	2.5	33	N/C	52	0.0	71	N/C	90	0.9
pin	volt	19	1.5	38	1.8	15	1.3	34	N/C	53	3.2	72	N/C	91	1.6
1	4.8	20	4.8	39	1.8	16	1.7	35	N/C	54	GND	73	N/C	92	3.2
2	2.0	21	0.0	40	0.0	17	1.9	36	N/C	55	GND	74	N/C	93	3.2
3	2.0	22	1.5	IC3501		18	1.8	37	N/C	56	N/C	75	N/C	94	3.2
4	1.8	23	1.5	pin	volt	19	1.9	38	N/C	57	5.0	76	4.1	95	2.0
5	1.9	24	1.5	1	GND	20	1.8	39	N/C	58	GND	77	GND	96	2.6
6	4.8	25	1.5	2	1.5	21	0.9	40	GND	59	4.5	78	GND	97	0.0
7	1.6	26	1.5	3	1.5	22	1.3	41	0.0	60	4.5	79	0.0	98	0.5
8	1.4	27	2.4	4	1.5	23	1.4	42	0.0	61	N/C	80	GND	99	1.5
9	1.1	28	1.0	5	1.5	24	1.6	43	0.0	62	N/C	81	3.2	100	3.2
10	0.8	29	1.0	6	1.5	25	1.8	44	0.0	63	N/C	82	1.0	IC3502	
11	N/C	30	N/C	7	1.5	26	1.8	45	3.2	64	3.2	83	1.6	pin	volt
12	N/C	31	1.9	8	1.5	27	2.0	46	3.2	65	0.0	84	1.7	I	4.8
13	2.9	32	2.5	9	1.5	28	2.0	47	1.7	66	0.0	85	1.0	G	GND
14	0.5	33	1.3	10	1.0	29	GND	48	GND	67	N/C	86	0.0	O	3.3
15	N/C	34	1.7	11	2.8	30	1.4	49	GND	68	N/C	87	0.0	All voltages are in V.	
16	1.5	35	0.0	12	2.4	31	1.5	50	1.4	69	N/C	88	1.3		
17	1.5	36	1.9	13	1.9	32	3.2	51	0.0	70	N/C	89	0.5		



C BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q9001	7.5	GND	3.6
Q9002	0.2	11.1	GND
Q9003	2.1	12.0	3.2
Q9004	2.1	12.0	3.2
Q9005	3.2	12.0	2.1
Q9008	5.4	12.0	4.8
Q9009	3.2	GND	3.9
Q9010	3.2	GND	4.0
Q9011	3.2	GND	3.9
Q9012	5.4	10.5	4.8
Q9014	11.7	450.0	11.1

All voltages are in V.

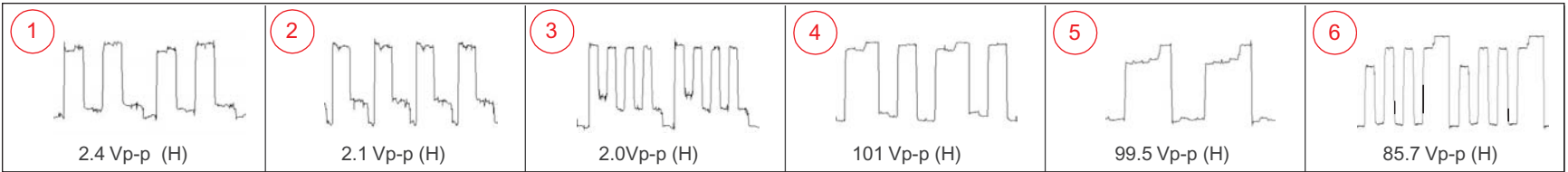


C BOARD IC VOLTAGE LIST

IC9001		IC9002		IC9003	
pin	volt	pin	volt	pin	volt
1	3.5	1	3.5	1	3.5
2	12.0	2	12.0	2	12.0
3	3.5	3	3.5	3	3.5
4	GND	4	GND	4	GND
5	8.0	5	7.8	5	7.8
6	203.0	6	203.0	6	203.0
7	145.0	7	142.6	7	147.0
8	158.0	8	164.0	8	163.0
9	144.0	9	142.0	9	146.0

All voltages are in V.

C BOARD WAVEFORMS

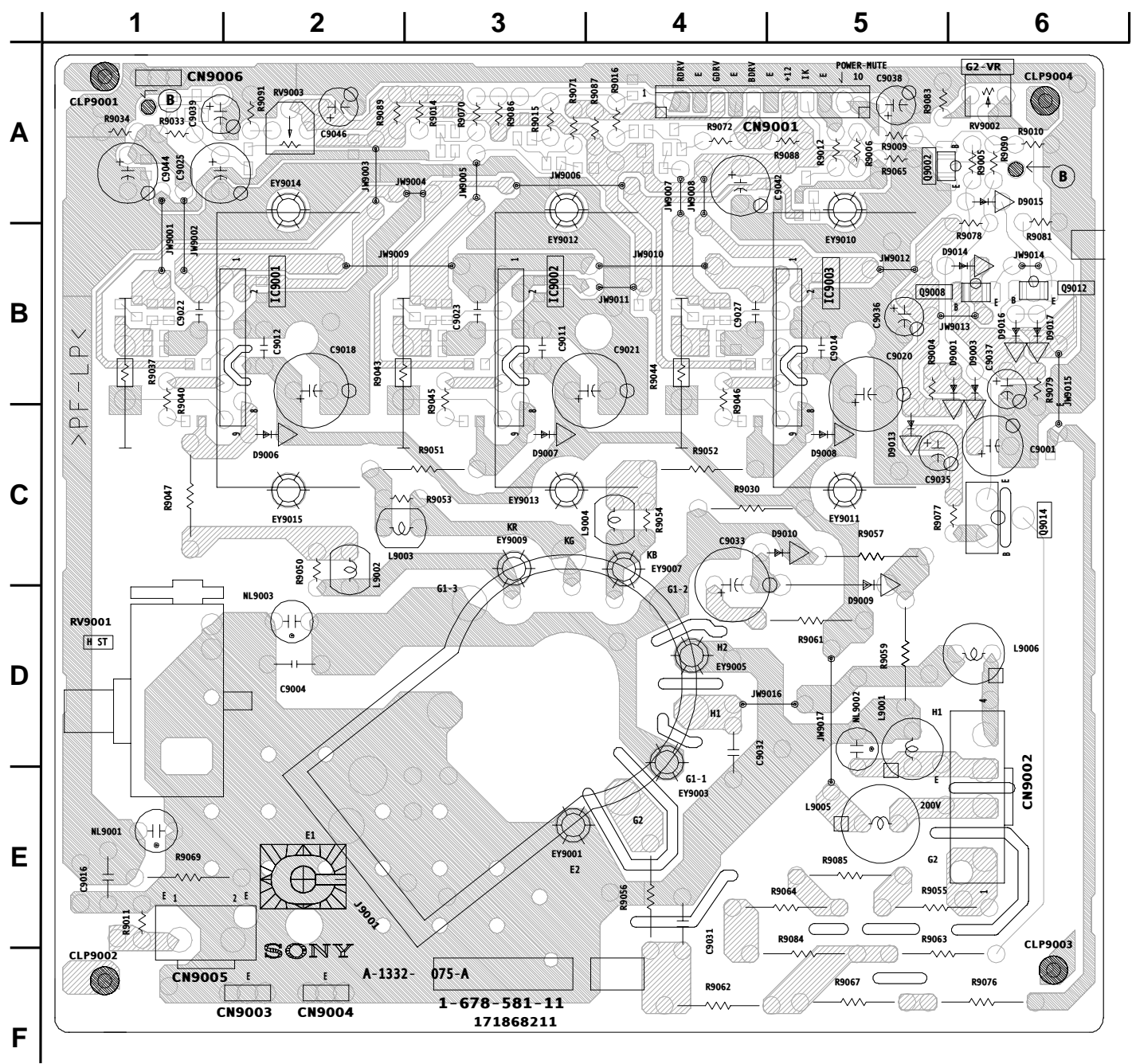


C

[TUNER, CRT DRIVE, MAIN UCOM, POWER SUPPLY, AUDIO]

KV-32HS20/36HS20/36HS20H/32XBR450/36XBR450/36XBR450H

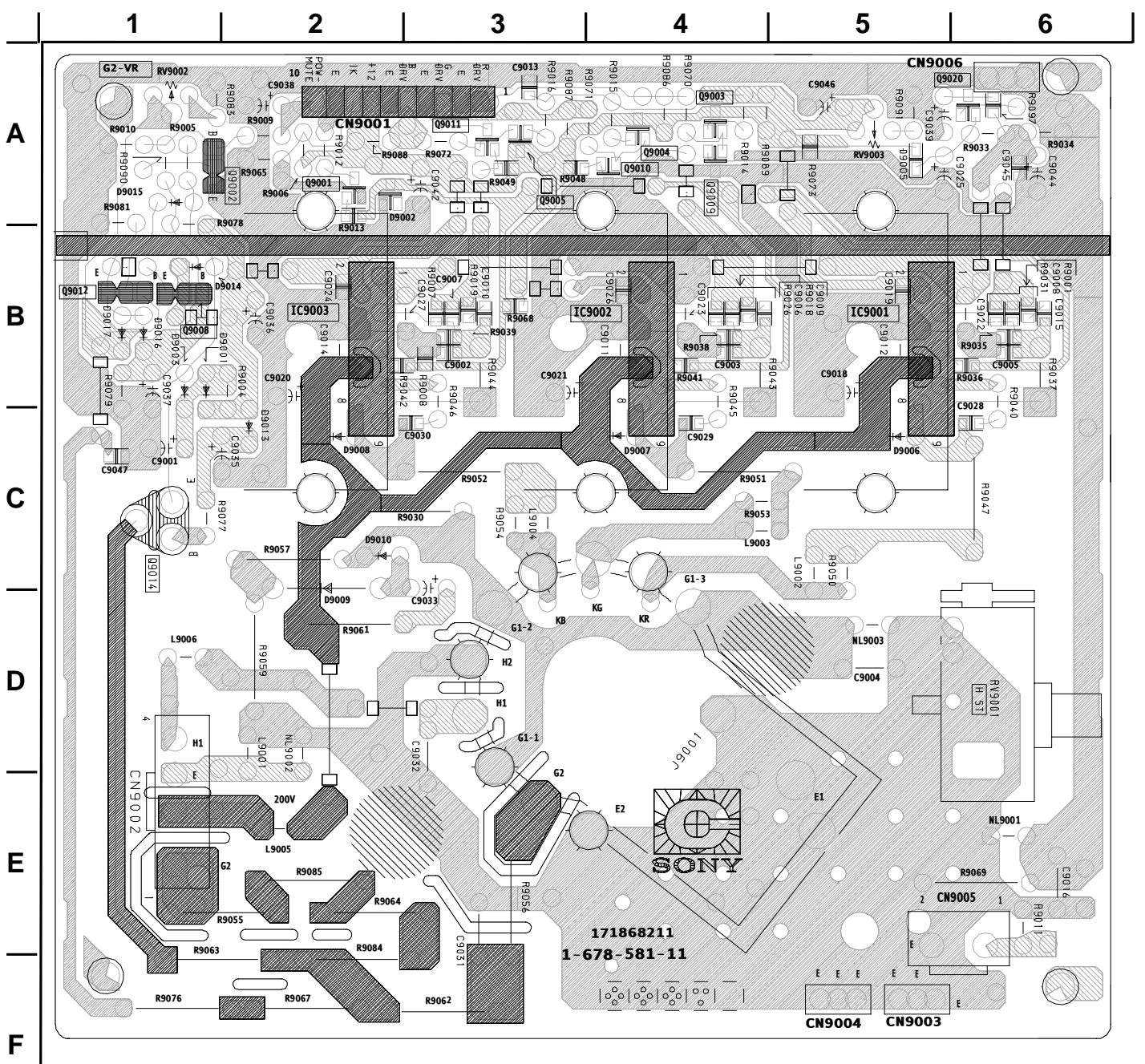
COMPONENT SIDE



C BOARD LOCATOR LIST  
(COMPONENT SIDE)

DIODE	D9016	B-6
D9001	B-6	B-6
D9003	B-6	IC
D9007	C-3	IC9001
D9008	C-5	IC9002
D9009	D-5	IC9003
D9010	C-5	TRANSISTOR
D9013	C-5	Q9002
D9014	B-6	Q9014
D9015	A-6	

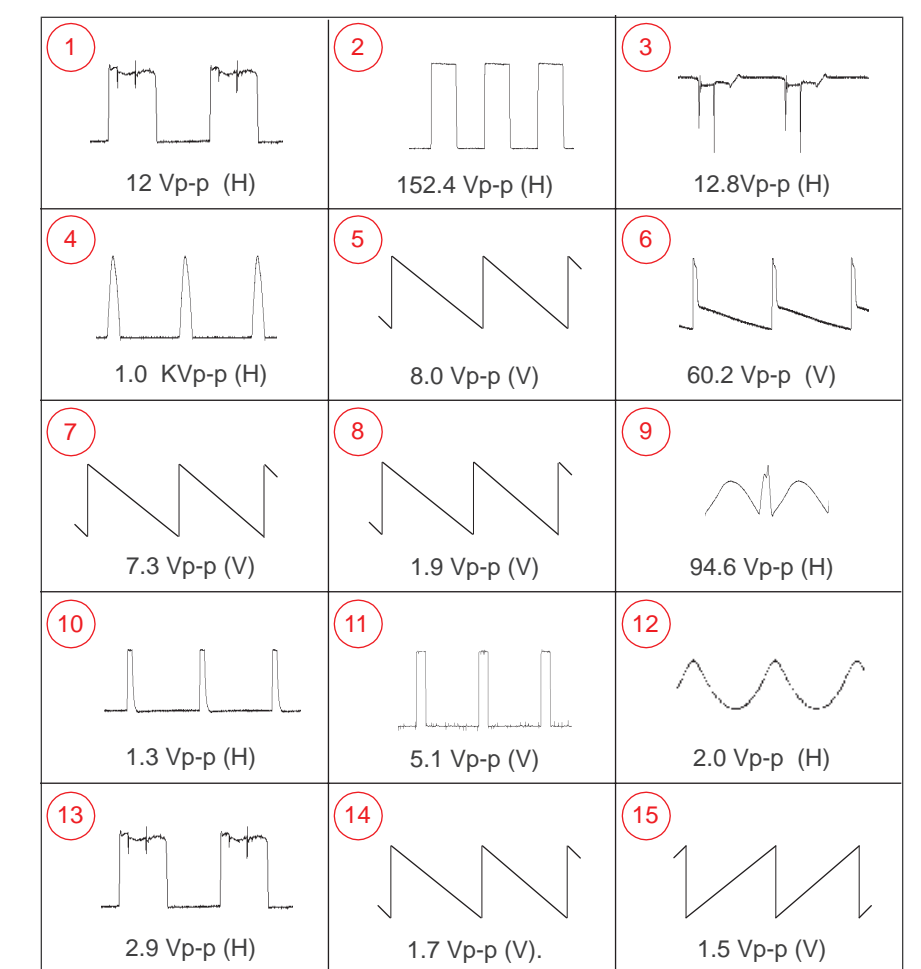
CONDUCTOR SIDE



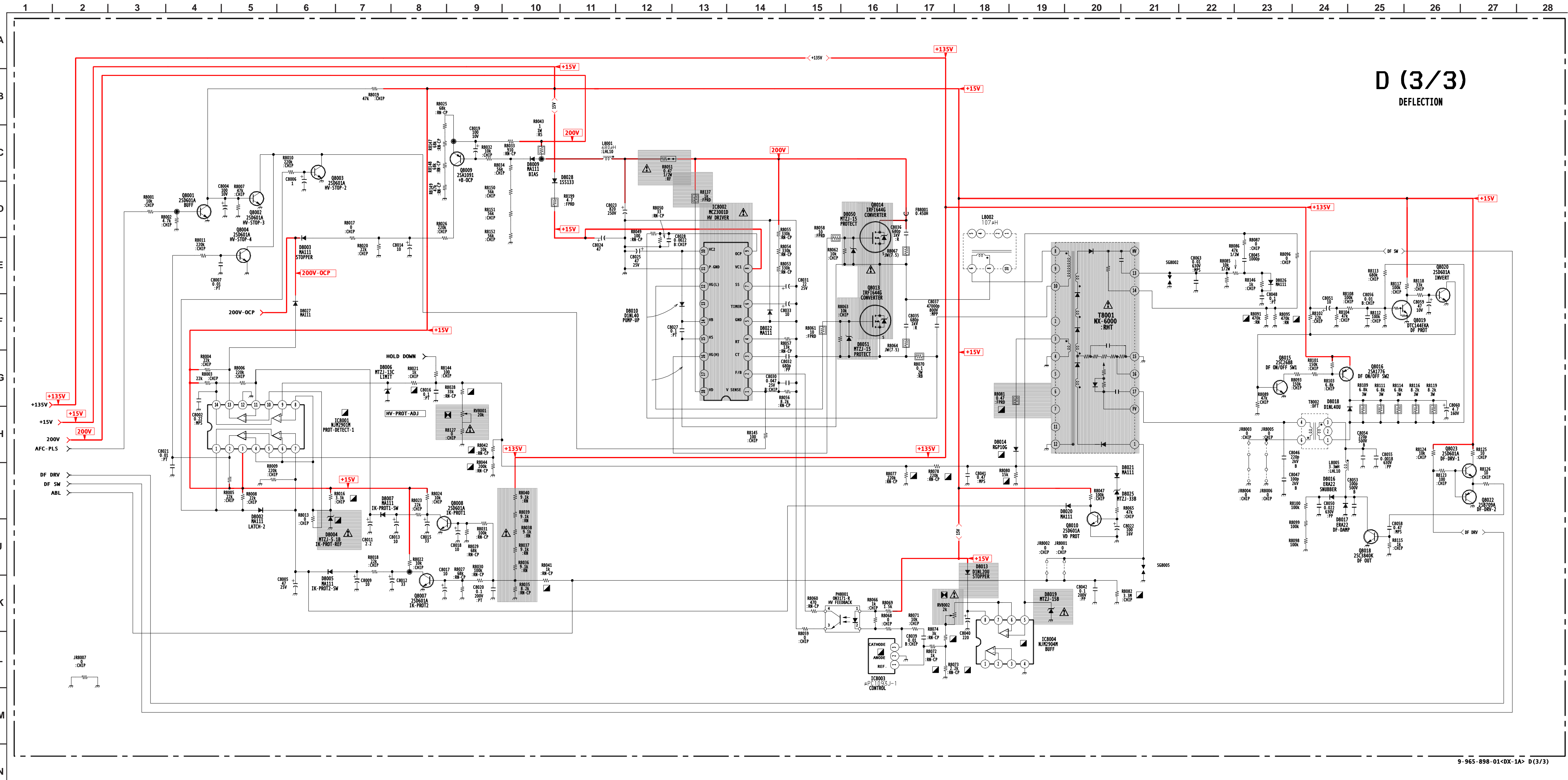
C BOARD LOCATOR LIST  
(COMPONENT SIDE)

DIODE	Q9004	A-4
D9002	A-2	Q9005
D9005	A-5	Q9008
D9006	C-5	Q9009
TRANSISTOR	Q9010	A-4
Q9001	A-2	Q9011
Q9003	A-4	Q9012





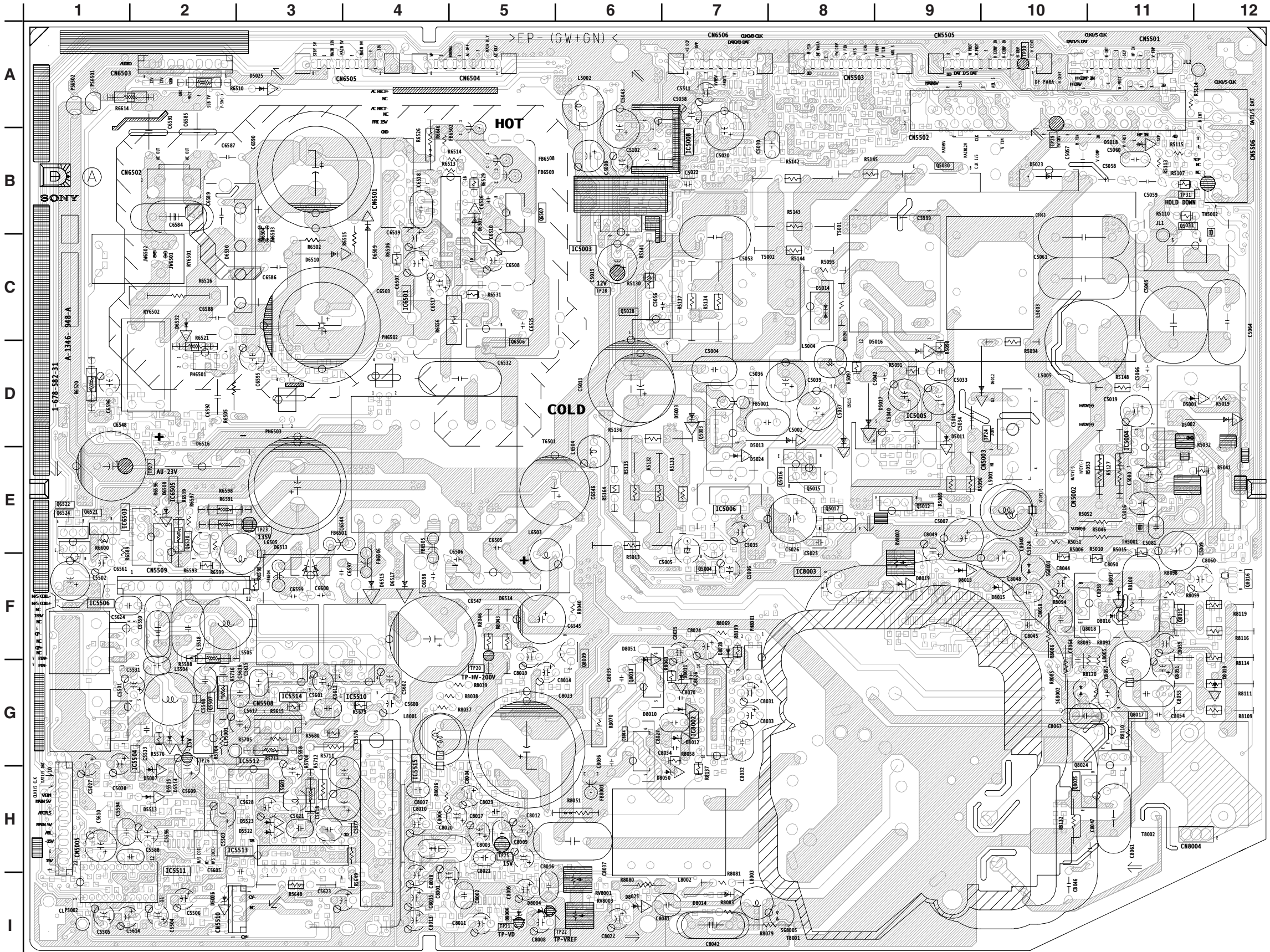
D BOARD SCHEMATIC DIAGRAM (3 OF 3)



D

[POWER SUPPLY, AC RECT, H/V DRIVE, H/V DY, DEFLECTION]

COMPONENT SIDE



KV-32HS20/36HS20/36HS20H/32XBR450/36XBR450/36XBR450H

D BOARD LOCATOR LIST  
(COMPONENT SIDE)

DIODE		IC	
D5001	D-12	IC5004	D-11
D5002	D-12	IC5005	D-9
D5003	D-7	IC5006	E-7
D5006	I-2	IC5504	H-2
D5007	H-2	IC5506	F-1
D5011	D-9	IC5510	G-4
D5012	D-10	IC5511	I-2
D5013	D-7	IC5512	H-3
D5014	C-8	IC5513	H-3
D5015	D-8	IC5514	G-3
D5016	C-9	IC5515	H-4
D5017	D-9	IC6501	C-4
D5018	B-11	IC6503	E-2
D5023	B-10	IC6505	E-2
D5024	E-7	IC8002	G-7
D5025	A-3	IC8003	F-8
D5513	H-2	TRANSISTOR	
D5514	H-2	Q5003	D-7
D5515	H-2	Q5004	F-7
D5522	H-3	Q5030	B-9
D5523	H-3	Q5031	B-11
D6502	C-5	Q5507	G-2
D6508	E-2	Q6507	B-5
D6509	C-4	Q6521	E-1
D6510	C-3	Q6522	E-1
D6513	F-3	Q6524	E-1
D6514	G-6	Q8009	G-6
D6515	F-4	Q8013	G-6
D6516	D-2	Q8014	G-6
D6517	F-4	Q8015	F-11
D6532	C-2	Q8018	F-11
D8004	I-5		
D8006	I-5		
D8017	F-11		
D8018	G-12		
D8019	F-9		
D8025	I-6		

DIODE		D8021	I-6	Q5033	B-4
D5004	E-6	D8022	G-6	Q5034	B-4
D5005	F-6	D8026	G-5	Q5035	B-4
D5008	H-12	D8027	G-8	Q5036	B-5
D5009	H-12	IC		Q5037	A-5
D5010	H-11	IC5001	B-5	Q5501	H-10
D5019	B-3	IC5002	A-6	Q5502	H-10
D5021	B-6	IC5003	C-7	Q5503	H-10
D5026	B-4	IC5007	A-5	Q5504	H-11
D5027	B-4	IC5008	A-7	Q5505	H-11
D5028	B-4	IC5501	A-6	Q5506	H-12
D5029	C-7	IC5502	H-11	Q5508	H-11
D5031	H-10	IC8001	I-8	Q5509	H-11
D5032	E-4	IC8004	F-4	Q6503	D-10
D5501	I-12	TRANSISTOR		Q6506	D-7
D5502	I-11	Q5001	B-7	Q6520	F-11
D5503	I-12	Q5002	B-7	Q6526	C-10
D5505	A-6	Q5005	D-2	Q6527	D-11
D5506	H-11	Q5006	I-11	Q6528	D-9
D5507	B-5	Q5007	I-11	Q6529	D-11
D6501	D-11	Q5008	G-12	Q6530	D-11
D6507	B-8	Q5011	A-6	Q6531	D-10
D6522	E-11	Q5012	E-4	Q6532	D-11
D6530	C-10	Q5013	E-4	Q8001	H-8
D6531	C-11	Q5014	E-4	Q8002	H-8
D6533	D-11	Q5015	E-5	Q8003	H-8
D6537	E-11	Q5016	E-5	Q8004	H-8
D8002	I-8	Q5017	E-4	Q8007	H-8
D8003	I-8	Q5018	B-5	Q8008	I-8
D8005	I-8	Q5019	B-1	Q8010	I-7
D8007	I-8	Q5020	B-2	Q8016	F-1
D8009	G-7	Q5021	B-2	Q8019	F-1
D8010	G-6	Q5022	B-2	Q8020	F-2
D8013	F-4	Q5023	A-4	Q8022	F-4
D8014	I-6	Q5026	C-6	Q8023	F-4
D8016	F-2	Q5027	C-6		
D8020	I-7	Q5028	C-7		

**D BOARD IC VOLTAGE LIST (1 OF 3)**

<b>IC6501</b>		11	0.0	3	2.5
pin	volt	12	4.6	4	11.8
1	2.5	13	N/C	5	GND
2	1.8	14	163.6	<b>IC6505</b>	
3	2.2	15	153.5	pin	volt
4	2.5	16	157.6	1	134.9
5	GND	17	N/C	2	15.7
6	0.0	18	1.7	3	GND
7	4.0	<b>IC6503</b>		All voltages are in V.	
8	17.2	pin	volt		
9	GND	1	134.0		
10	10.4	2	N/C		

**D BOARD TRANSISTOR VOLTAGE LIST (1 OF 3)**

	<b>B</b>	<b>C</b>	<b>E</b>
Q6503	0.0	2.5	0.0
Q6520	131.0	0.0	132.0
Q6521	0.0	2.1	GND
Q6522	15.7	GND	15.7
Q6524	2.1	0.4	4.9
Q6526	5.9	0.0	5.9
Q6527	0.6	0.0	0.0
Q6528	0.6	0.0	0.0
Q6529	0.0	5.9	0.0
Q6530	4.7	0.0	4.7
Q6531	0.6	0.0	GND
Q6532	0.0	4.7	GND

	<b>D</b>	<b>G</b>	<b>S</b>
Q6506	4.7	149.2	0.0
Q6507	154.4	303.3	150.0

All voltages are in V.

**D BOARD IC VOLTAGE LIST (2 OF 3)**

<b>IC5001</b>		5	0.2	14	0.6	12	GND	6	4.2	8	5.0
pin	volt	6	16.2	<b>IC5008</b>		13	3.7	7	GND	9	5.0
1	11.0	7	1.2	pin	volt	14	0.0	8	4.2	10	12.1
2	11.0	<b>IC5005</b>		1	9.1	<b>IC5504</b>		9	1.9	11	4.0
3	1.7	pin	volt	2	12.0	pin	volt	10	4.4	12	5.0
4	GND	1	100.0	3	GND	1	4.2	11	4.4	13	5.0
5	4.0	2	99.7	4	5.0	2	4.2	12	6.4	14	0.5
6	4.0	3	95.3	5	5.2	3	GND	13	N/C	15	1.1
7	5.9	4	100.0	<b>IC5501</b>		4	5.5	14	8.2	16	4.6
8	12.1	5	104.6	pin	volt	5	9.0	15	1.9	17	4.6
<b>IC5002</b>		<b>IC5006</b>		1	GND	<b>IC5506</b>		16	4.0	18	GND
pin	volt	pin	volt	2	5.0	pin	volt	17	4.9	<b>IC5514</b>	
1	0.1	I	7.8	3	5.0	1	4.3	18	N/C	pin	volt
2	6.0	G	GND	4	GND	2	4.3	19	3.6	1	0.3
3	3.8	O	6.3	5	4.6	3	-15.5	20	9.0	2	0.3
4	GND	VCC	2.7	6	4.6	4	4.4	21	0.9	3	-12.0
5	2.3	<b>IC5007</b>		7	5.0	5	9.0	22	3.4	4	0.7
6	3.7	pin	volt	8	5.0	<b>IC5510</b>		<b>IC5512</b>		5	9.0
7	2.9	1	3.1	<b>IC5502</b>		pin	volt	pin	volt	<b>IC5515</b>	
8	12.1	2	0.6	pin	volt	1	0.6	I	-15.8	pin	volt
<b>IC5003</b>		3	12.1	1	5.4	2	0.6	G	GND	1	3.4
pin	volt	4	1.5	2	2.4	3	-11.9	O	-12.0	2	3.4
I	15.6	5	2.3	3	12.1	4	2.4	<b>IC5513</b>		3	-9.6
G	GND	6	3.9	4	3.6	5	12.1	pin	volt	4	-15.3
O	12.1	7	2.8	5	3.4	<b>IC5511</b>		1	4.5	5	GND
<b>IC5004</b>		8	0.0	6	3.4	pin	volt	2	4.9	6	12.0
pin	volt	9	3.0	7	3.9	1	4.6	3	4.9	7	-14.0
1	1.2	10	1.4	8	1.0	2	4.6	4	4.6	8	2.7
2	15.6	11	6.1	9	1.0	3	4.0	5	5.0	9	GND
3	-12.6	12	GND	10	0.0	4	4.2	6	5.0	All voltages are in V.	
4	-14.5	13	2.5	11	0.0	5	9.0	7	N/C		

**D BOARD TRANSISTOR VOLTAGE LIST (2 OF 3)**

	B	C	E		B	C	E		B	C	E		B	C	E
Q5001	2.9	12.0	3.3	Q5014	6.6	12.1	6.1	Q5027	5.2	0.0	5.2	Q5505	0.0	4.2	GND
Q5002	2.9	GND	3.3	Q5015	202.8	212.4	203.2	Q5030	132.0	0.0	GND	Q5506	0.3	3.6	GND
Q5003	127.4	134.1	23.3	Q5016	203.2	212.4	202.6	Q5033	10.0	1.4	10.5	Q5508	4.0	12.1	4.6
Q5004	132.0	0.0	133.0	Q5017	6.5	164.8	6.1	Q5034	0.0	1.4	GND	Q5509	4.0	GND	4.6
Q5005	-0.5	15.6	0.1	Q5018	0.6	1.9	GND	Q5035	0.0	2.5	GND	All voltages are in V.			
Q5006	-12.0	1.0	-12.6	Q5019	3.7	12.1	2.9	Q5036	0.1	5.2	GND				
Q5007	4.4	-12.6	4.8	Q5020	3.7	GND	2.9	Q5037	3.1	12.1	GND		D	G	S
Q5008	11.9	0.0	10.7	Q5021	0.4	9.0	0.5	Q5501	2.4	12.1	3.7	Q5028	5.2	33.5	0.0
Q5011	0.1	3.9	GND	Q5022	0.4	GND	1.1	Q5502	0.5	5.4	GND	Q5031	2.9	12.6	GND
Q5012	3.7	97.7	3.2	Q5023	0.4	3.9	GND	Q5503	0.5	2.4	GND	Q5507	5.4	6.9	GND
Q5013	3.1	GND	3.7	Q5026	5.2	12.1	5.2	Q5504	0.0	4.0	GND	All voltages are in V.			

**D BOARD IC VOLTAGE LIST (3 OF 3)**

IC8001		10	5.0	5	GND	16	99.0	2	0.9
pin	volt	11	0.1	6	0.0	17	N/C	3	0.9
1	0.1	12	GND	7	4.7	18	198.0	4	GND
2	0.0	13	0.1	8	15.6	IC8003		5	7.1
3	15.6	14	0.1	9	0.0	pin	volt	6	7.1
4	5.0	IC8002		10	10.4	1	2.4	7	7.1
5	0.0	pin	volt	11	GND	2	GND	8	15.2
6	5.0	1	1.6	12	4.5	3	11.0	All voltages are in V.	
7	0.0	2	1.8	13	N/C	IC8004			
8	5.0	3	2.2	14	104.8	pin	volt		
9	4.2	4	2.5	15	94.8	1	14.0		

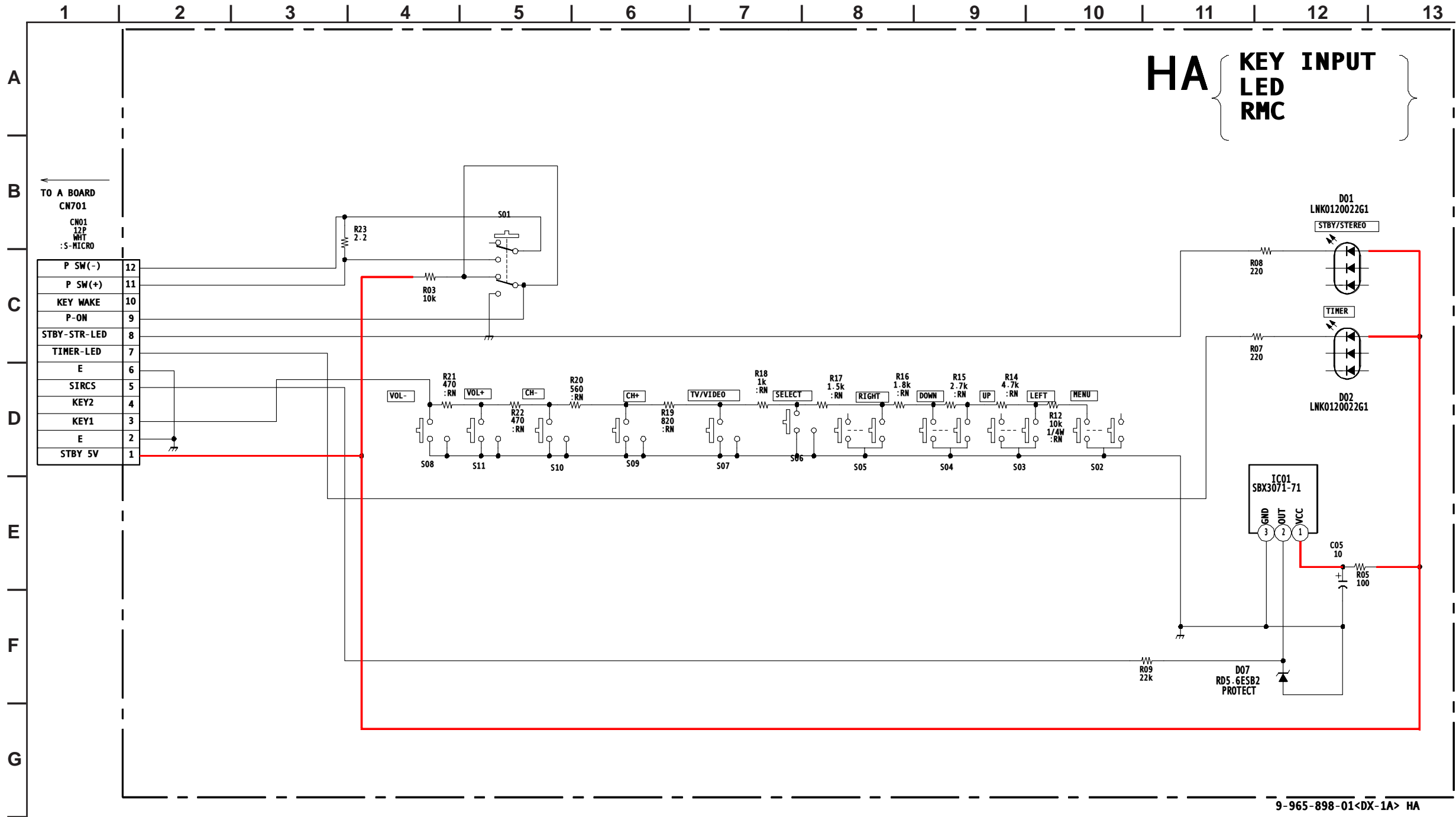
**D BOARD TRANSISTOR VOLTAGE LIST (3 OF 3)**

	<b>B</b>	<b>C</b>	<b>E</b>
Q8001	0.1	0.0	GND
Q8002	0.0	1.6	GND
Q8003	0.2	1.6	GND
Q8004	0.0	1.6	GND
Q8007	0.6	0.0	GND
Q8008	0.6	0.0	GND
Q8009	196.0	0.0	196.0
Q8010	2.1	0.0	GND
Q8015	0.5	0.0	GND
Q8016	134.5	134.7	135.1
Q8018	-5.5	94.4	GND
Q8019	3.5	0.0	GND
Q8020	0.0	0.5	GND
Q8022	4.6	GND	4.9
Q8023	4.6	15.5	4.9

	<b>D</b>	<b>G</b>	<b>S</b>
Q8013	4.6	94.8	GND
Q8014	99.0	198.0	93.2

All voltages are in V.

HA BOARD SCHEMATIC DIAGRAM

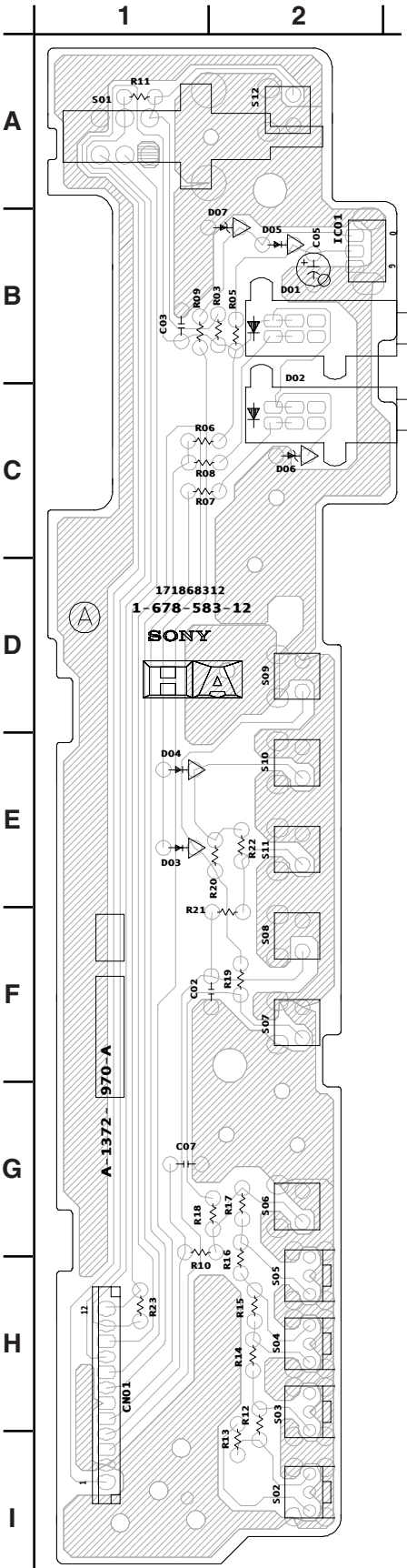


HA BOARD IC VOLTAGELIST

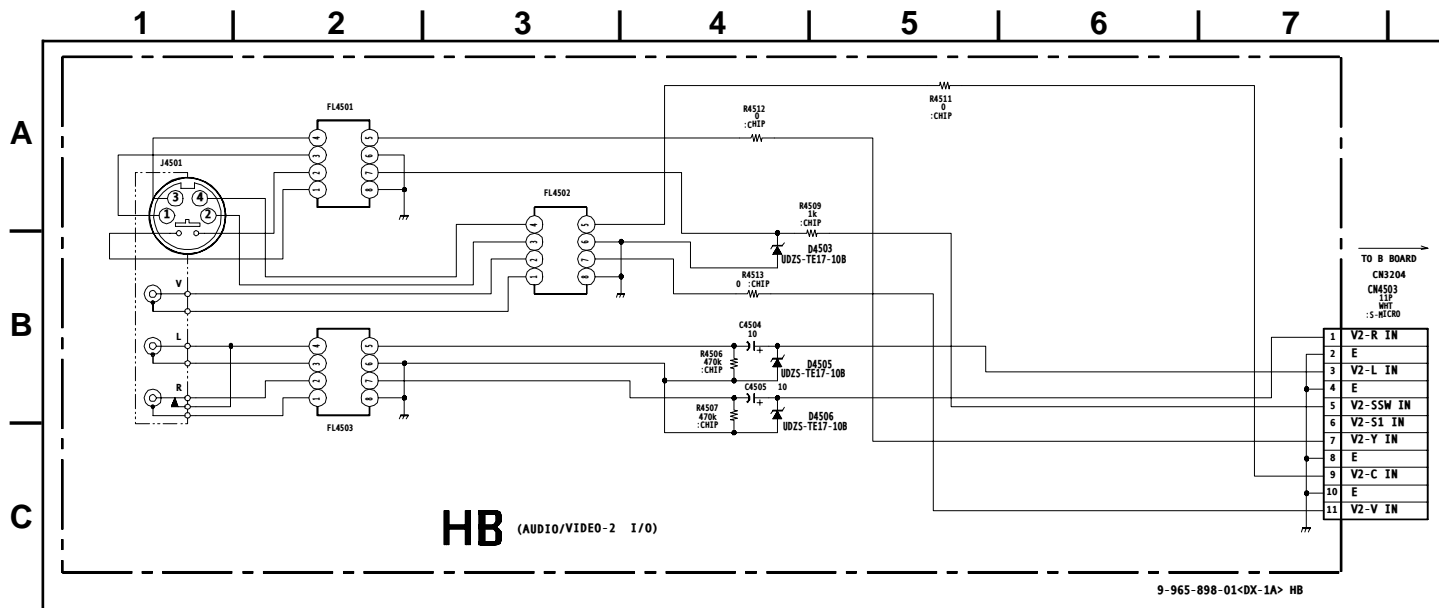
IC01	
pin	volt
1	4.9
2	0.0
3	4.3

All voltages are in V.

HA [KEY INPUT, LED, RMC]

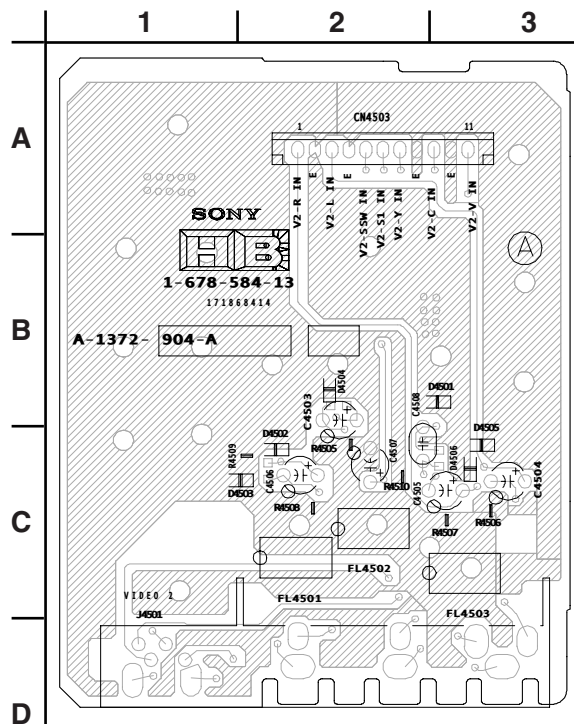


## HB BOARD SCHEMATIC DIAGRAM

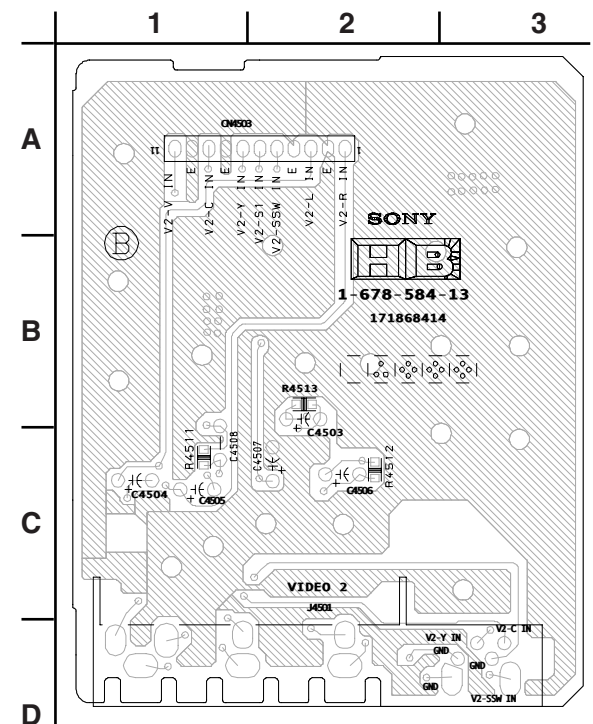
**HB**

[AUDIO/VIDEO 2, I/O]

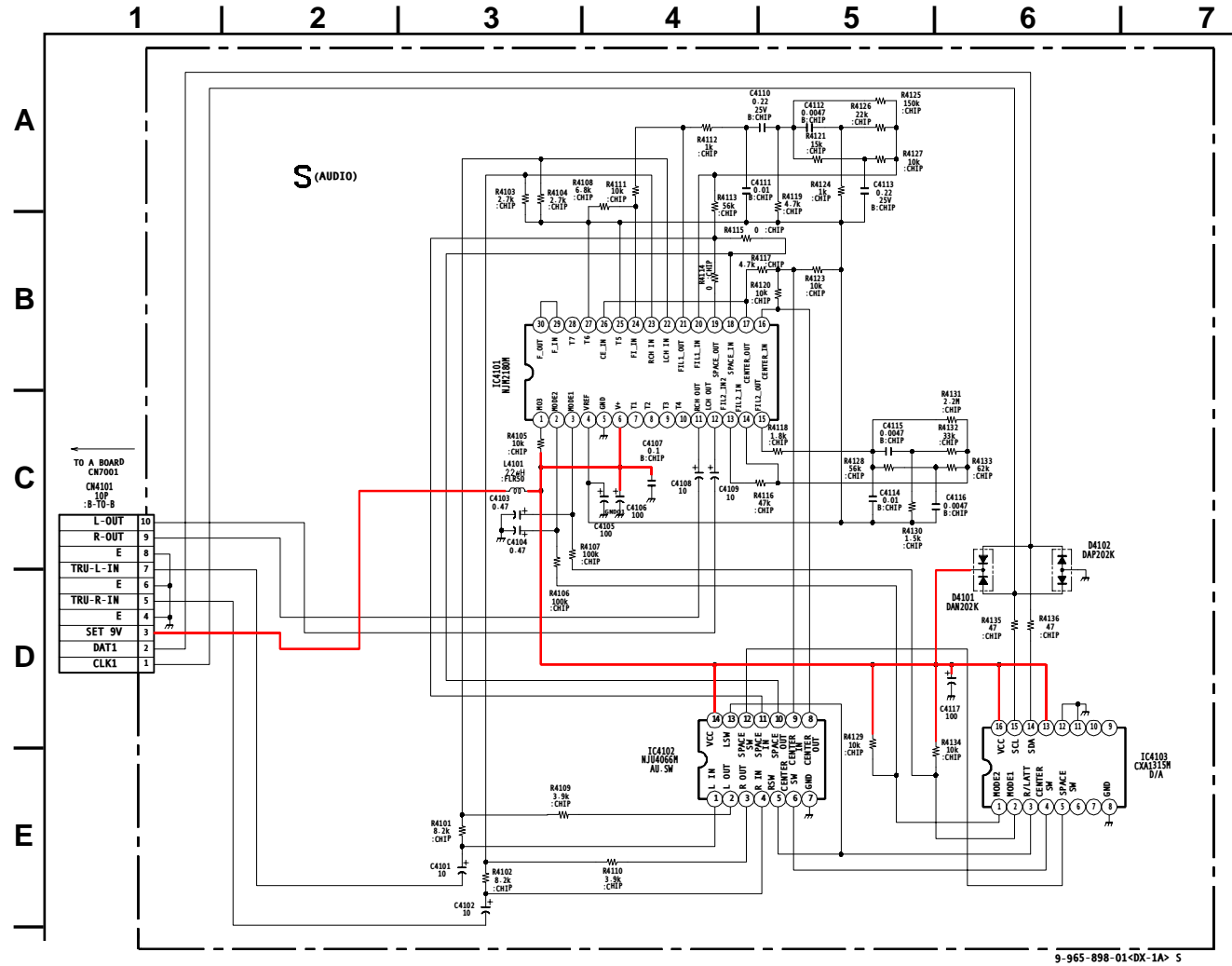
## COMPONENT SIDE



## CONDUCTOR SIDE



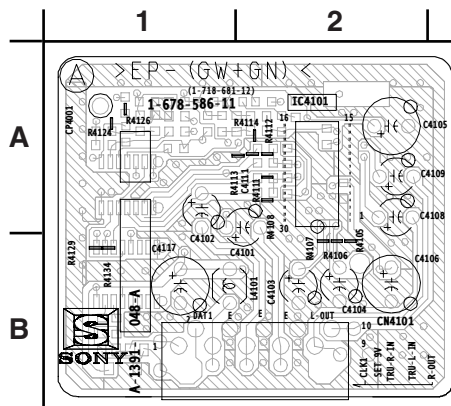
## S BOARD SCHEMATIC DIAGRAM



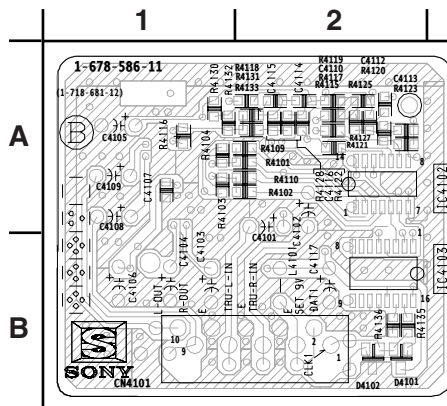
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## COMPONENT SIDE



## CONDUCTOR SIDE

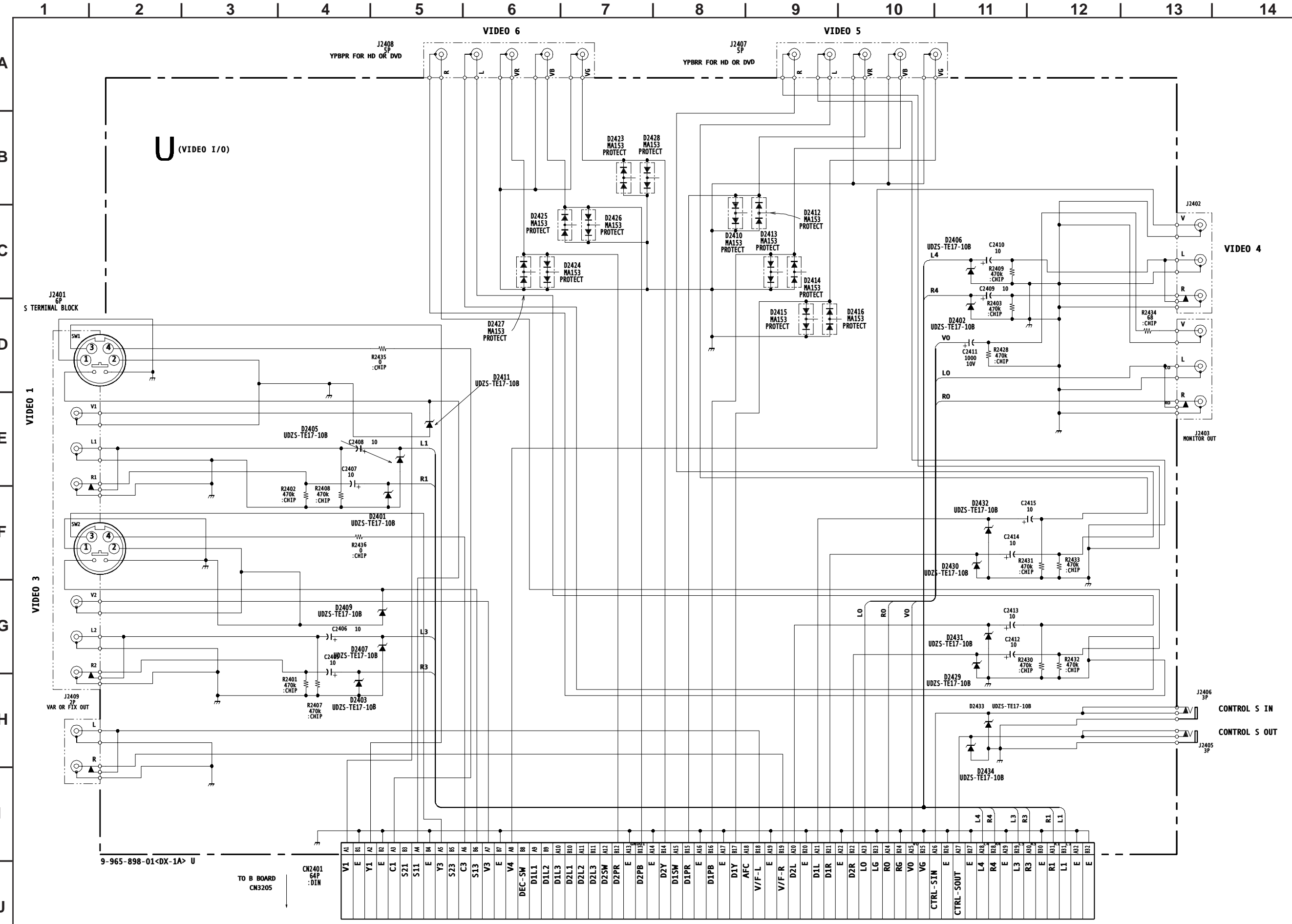


## S BOARD IC VOLTAGE LIST

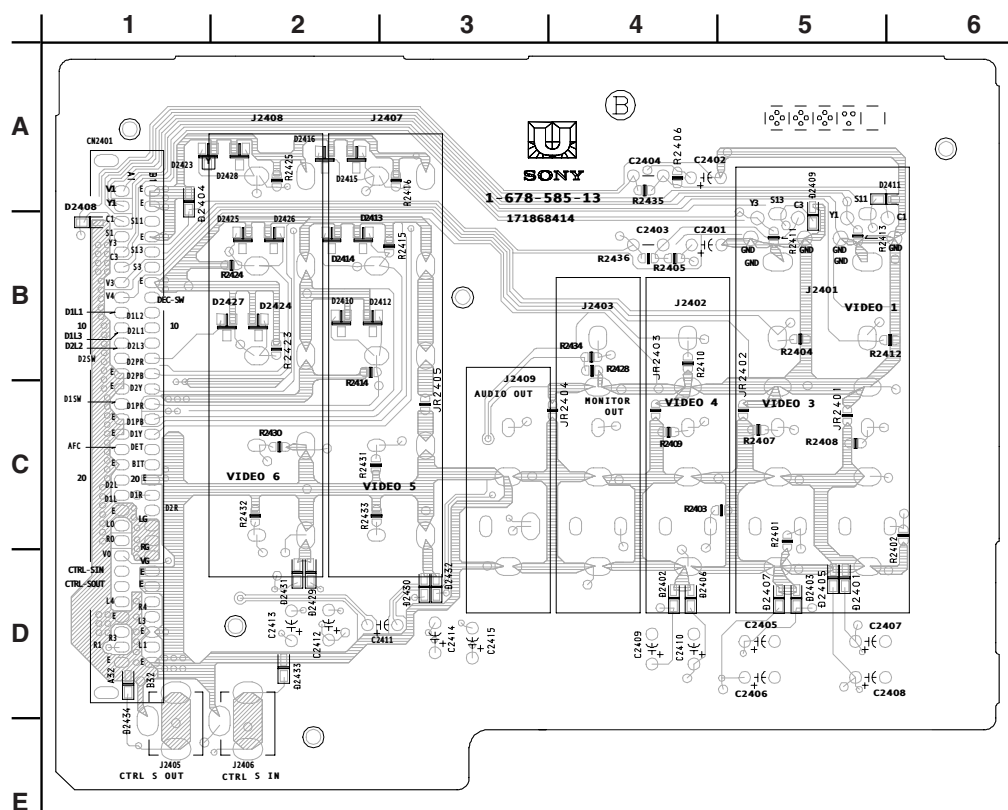
IC4101		22	4.5	13	8.6
pin	volt	23	4.5	14	9.0
1	8.4	24	4.5	IC4103	
2	0.1	25	4.5	pin	volt
3	0.1	26	4.5	1	0.1
4	4.5	27	4.5	2	0.1
5	GND	28	NC	3	8.6
6	9.0	29	4.5	4	0.3
7	NC	30	4.5	5	0.3
8	NC	IC4102		6	NC
9	NC	pin	volt	7	NC
10	NC	1	4.5	8	GND
11	4.5	2	4.5	9	NC
12	4.5	3	4.5	10	NC
13	4.5	4	4.5	11	GND
14	4.5	5	8.6	12	GND
15	4.5	6	0.3	13	9.0
16	4.5	7	GND	14	4.5
17	4.5	8	4.5	15	4.5
18	4.5	9	4.5	16	9.0
19	4.5	10	4.5	All voltages are in V.	
20	4.5	11	4.5		
21	4.5	12	0.3		

U BOARD SCHEMATIC DIAGRAM

KV-32HS20/36HS20/36HS20H/32XBR450/36XBR450/36XBR450H

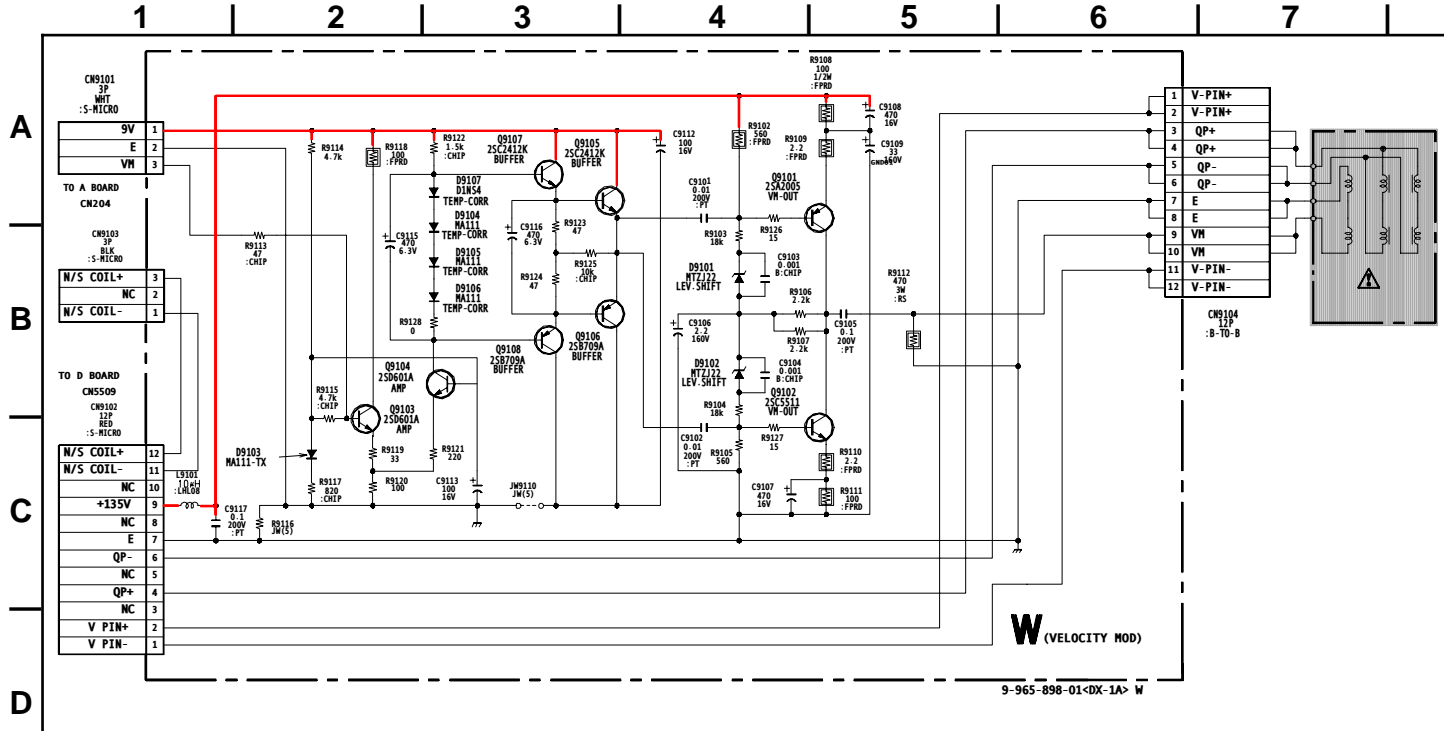


## COMPONENT SIDE



DIODE		D2416	A-2
D2401	D-5	D2423	A-1
D2402	D-4	D2424	B-2
D2403	D-5	D2425	B-2
D2405	D-5	D2426	B-2
D2406	D-4	D2427	B-2
D2407	D-5	D2428	A-2
D2409	A-5	D2429	D-2
D2410	B-2	D2430	D-3
D2411	A-5	D2431	D-2
D2412	B-2	D2432	D-3
D2413	B-2	D2433	D-2
D2414	B-2	D2434	D-1
D2415	A-2		

## W BOARD SCHEMATIC DIAGRAM



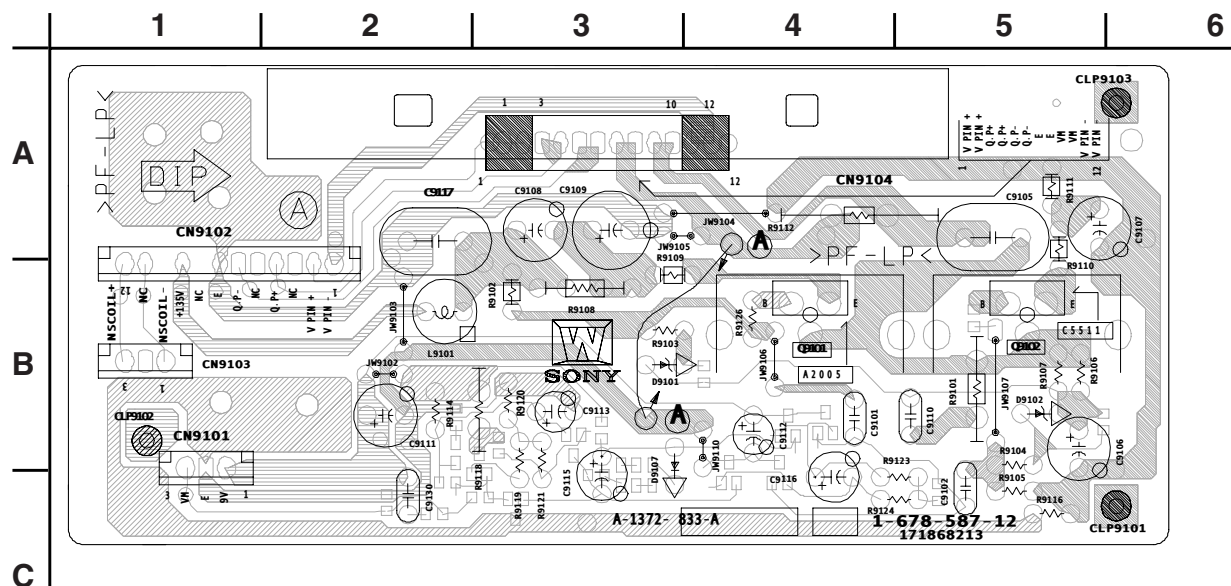
## W BOARD TRANSISTOR VOLTAGE LIST

	B	C	E
Q9101	133.8	67.5	134.3
Q9102	1.3	67.5	0.8
Q9103	2.9	0	9.0
Q9104	9.0	5.1	0
Q9105	5.1	9.0	4.7
Q9106	4.1	GND	4.7
Q9107	5.9	9.0	5.1
Q9108	3.5	GND	4.1
Q9109	2.9	GND	3.5

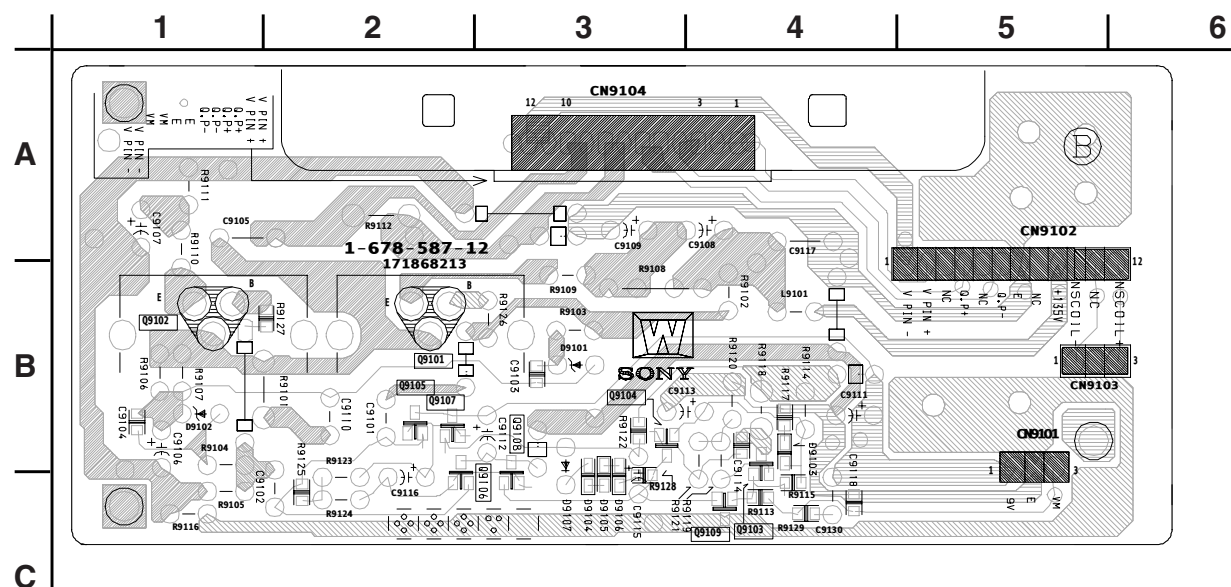
All voltages are in V.



[VELOCITY MOD]

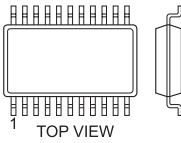
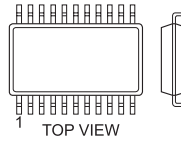
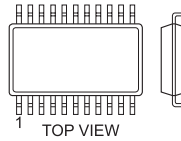
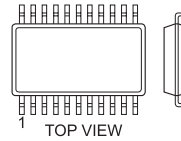
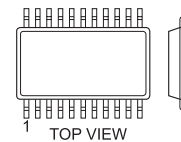
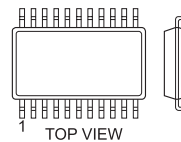
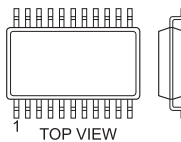
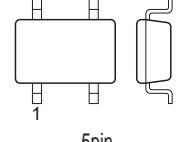
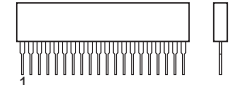
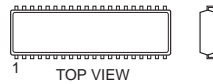

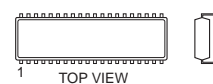
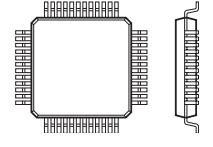
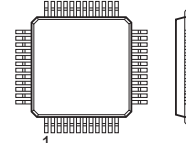
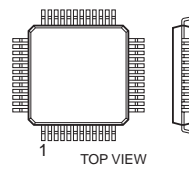
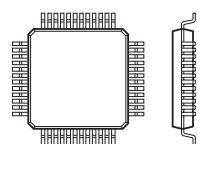
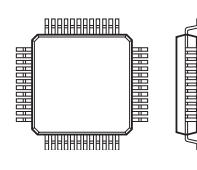
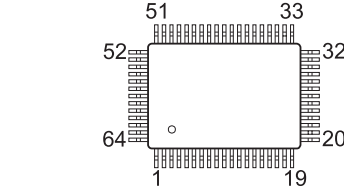
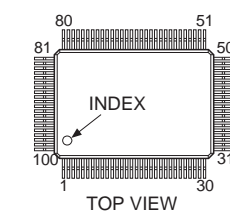
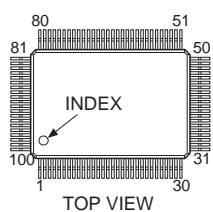
**COMPONENT SIDE****W BOARD LOCATOR LIST  
(COMPONENT SIDE)**

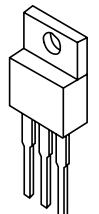
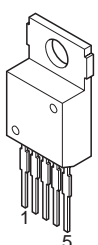
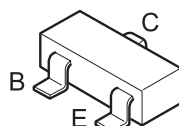
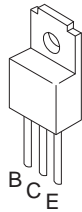
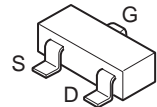
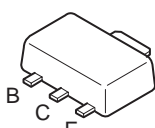
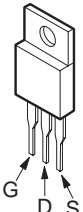
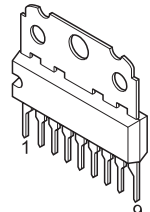
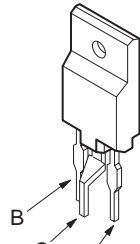
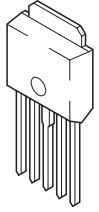
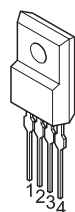
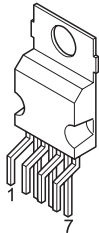
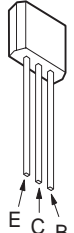
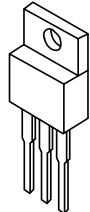
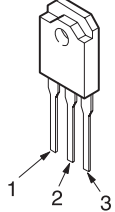
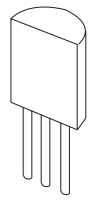
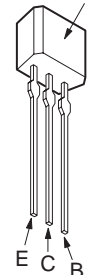
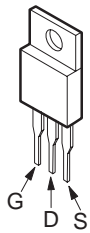
DIODE		TRANSISTOR	
D9101	B-3	Q9101	B-4
D9102	B-5	Q9102	B-5
D9107	C-3		

**CONDUCTOR SIDE****W BOARD LOCATOR LIST  
(CONDUCTOR SIDE)**

DIODE		TRANSISTOR	
D9103	B-4	Q9103	C-4
D9104	C-3	Q9104	B-3
D9105	C-3	Q9105	B-2
D9106	C-3	Q9106	B-3

## 5-4. SEMICONDUCTORS

 <p>8pin</p>	BR24C04F-WE2 BR24C08 NJM2901M-TE2 NJM2903M NJM2904M NJM4558E(TE2) TC7WU04FU(TE12R) TDA2822D	 <p>14pin</p> <p>M52055FP MC74HC4066F TLC2932IPW TLC2933IPWR-12</p>	 <p>16pin</p> <p>CXD2085M-T4 SN74LV4053ANSR</p>	 <p>28pin</p> <p>CXD2057M-T6 TEA6422DT</p>
 <p>32pin</p> <p>BH3868AFS-E2</p>	 <p>50pin</p> <p>MSM56V16160F-10TS-K</p>	 <p>86pin</p> <p>MB81F643242B-10FN</p>	 <p>5pin</p> <p>PST9120NL PST9145NL TC7SET08FU(TE85L)</p>	<p>MARKING SIDE VIEW</p>  <p>8pin</p> <p>UPC1406HA</p>
 <p>14pin</p> <p>IR2112</p>	 <p>18pin</p> <p>MCZ3001D</p>	 <p>22pin</p> <p>CXA2026AS</p>	 <p>32pin</p> <p>CXD2073Q-T4</p>	 <p>48pin</p> <p>CXA2103Q CXA2150Q CXD2309Q</p>
 <p>64pin</p> <p>TLC5733AIPM</p>	 <p>208pin</p> <p>CXD2090Q</p>	 <p>240pin</p> <p>CXD9509AQ</p>	 <p>TOP VIEW</p> <p>CXA2069Q</p>	
 <p>TOP VIEW</p> <p>CXA2150Q</p>			 <p>TOP VIEW</p> <p>MB94918-DX1MID M306V2ME-102FP</p>	


 <p>PC123FV2</p>	 <p>NJM79M12FA</p>	 <p>LA6500-FA</p>	 <p>DTA114EKA-T146 DTA143EK DTA144EKA-T146 DTC114EK</p> <p>DTC114TKA-T146 DTC143EKA-T146 DTC144EKA-T146 2SA1162-G 2SA1226 2SC1623-L5L6 2SC4081-R 2SD601A-Q 2SD601A-Q-TX 2SD601A-S</p>	
 <p>2SA2005 2SC5511</p>	 <p>2SK1572S</p>	 <p>2SK2036(TE85L)</p>	 <p>IRF614 IRF644 IMB12-140-F153A</p>	 <p>TDA6111Q/N4</p>
 <p>2SC4632LS-CB7</p>	 <p>PQ07VZ012P</p>	 <p>PQ09RD21 PQ05RF21 PQ09RF21 PQ12RF21 PQ30RF21</p>	 <p>STV9379</p>	 <p>2SA1776TV2Q</p>
 <p>UPC2412AHF</p>	 <p>2SC3997S-SONY</p>	 <p>UPC1093J</p>	<p>LETTER SIDE</p>  <p>2SA1175-HFE 2SC3311A-QRSTA</p>	
 <p>IRF19630GS</p>	<p>LETTER SIDE</p>  <p>2SC2688-LK 2SC3840(3)</p>		 <p>2SA1208S-TP</p>	


## SECTION 6: EXPLODED VIEWS

Components not identified by a part number or description are not stocked because they are seldom required for routine service.

The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.

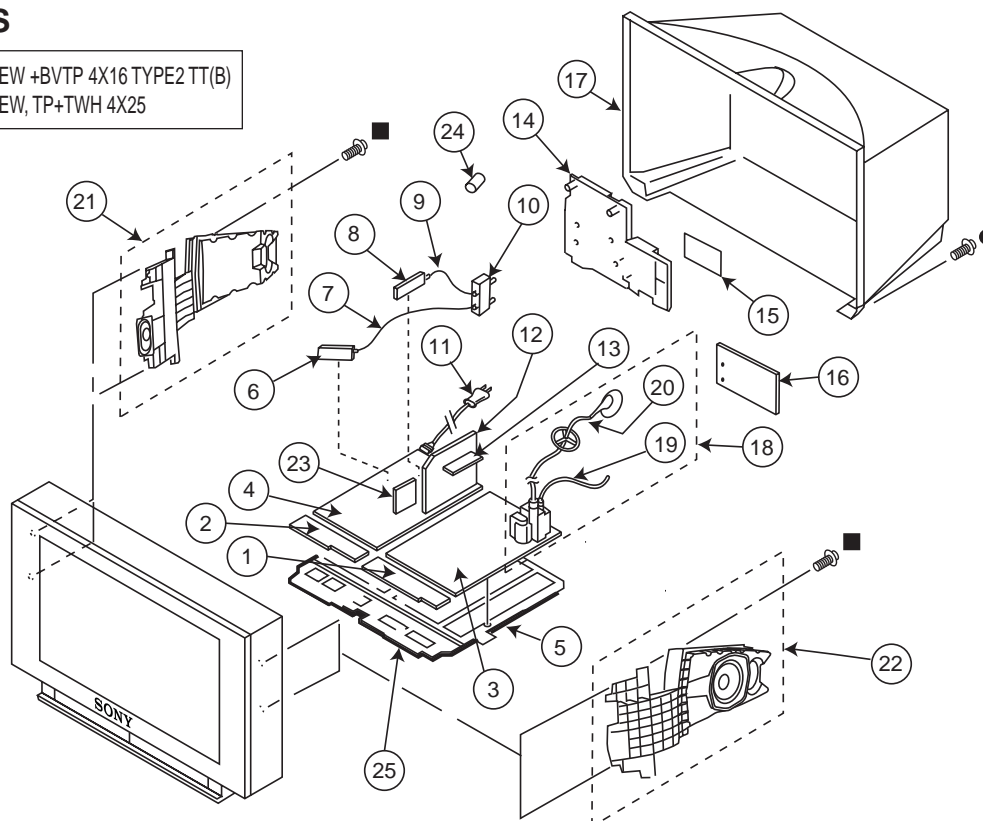
\* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.








NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

### 6-1. CHASSIS

- 7-685-663-79 SCREW +BVTP 4X16 TYPE2 TT(B)
- 4-064-929-02 SCREW, TP+TWH 4X25

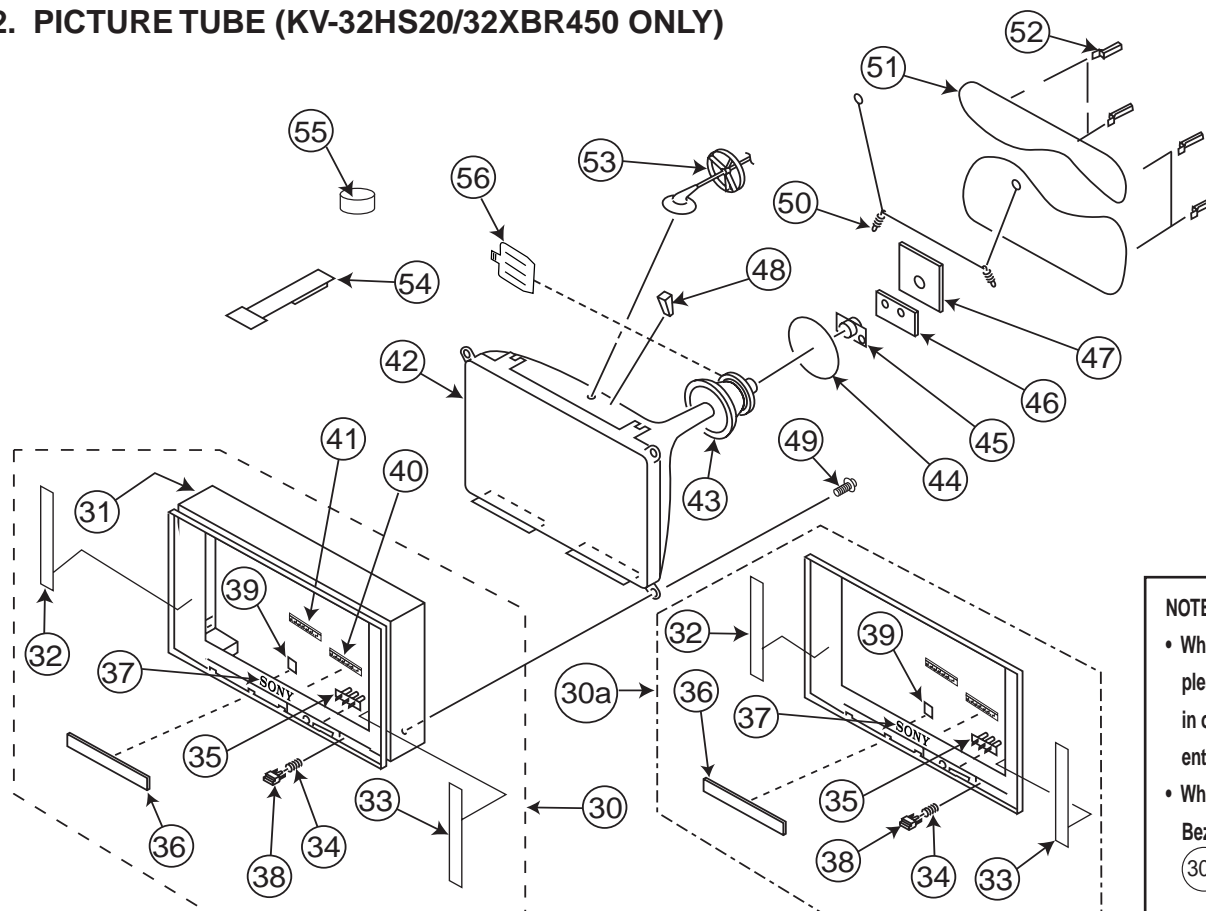


REF.NO.	PART NO.	DESCRIPTION	REF.NO.	PART NO.	DESCRIPTION	[Assembly Includes]
* 1	A-1372-970-A	HA BOARD, MOUNTED	15	4-077-820-01	LABEL, TERMINAL	
* 2	A-1372-904-A	HB (COM) BOARD, MOUNTED	* 16	A-1373-817-A	U (COM) BOARD, MOUNTED	
* 3	A-1346-947-A	D BOARD, COMPLETE (KV-32HS20/32XBR450 ONLY) The high voltage leads associated with the FBT on this board are not included and must be ordered separately (see 19-20).	17	4-075-833-01	COVER, REAR (ALL EXCEPT KV-32HS20/32XBR450)	
* 3	A-1346-948-A	D BOARD, COMPLETE (ALL EXCEPT KV-32HS20/32XBR450) The high voltage leads associated with the FBT on this board are not included and must be ordered separately (see 19-20).	17	4-075-821-01	COVER, REAR (KV-32HS20/32XBR450 ONLY)	
* 4	A-1299-481-A	A BOARD, COMPLETE	 18	1-453-346-11	FBT ASSY NX-6000/J1J4	19-20
* 5	4-075-828-01	BRACKET, MAIN	 19	1-900-805-19	WIRE ASSY, FOCUS HV	
 6	8-598-501-30	TUNER (BTF-FA402)	 20	1-251-715-22	CAP ASSY, HIGH-VOLTAGE	
* 7	1-555-400-00	CABLE, PIN	21	1-529-812-31	SPEAKER BOX LEFT (ALL EXCEPT KV-32HS20/32XBR450)	
 8	8-598-542-20	TUNER (BTF-WA412)	21	1-529-811-31	SPEAKER BOX LEFT (KV-32HS20/32XBR450 ONLY)	
* 9	1-557-009-31	CABLE, P-P	22	1-529-812-41	SPEAKER BOX RIGHT (ALL EXCEPT KV-32HS20/32XBR450)	
10	1-771-787-11	SWITCH, RF ANTENNA	22	1-529-811-41	SPEAKER BOX RIGHT (KV-32HS20/32XBR450 ONLY)	
 11	1-790-316-21	CORD, AC POWER(WITH CONNECTOR)	* 23	A-1391-048-A	S BOARD, MOUNTED	
* 12	A-1136-200-A	B BOARD, COMPLETE	24	1-500-386-11	FILTER, CLAMP (FERRITE CORE)	
* 13	A-1136-117-A	BC BOARD, COMPLETE	* 25	4-075-830-02	BRACKET, H	
*  14	4-075-829-01	BRACKET, U				

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

## 6-2. PICTURE TUBE (KV-32HS20/32XBR450 ONLY)



**NOTE:**

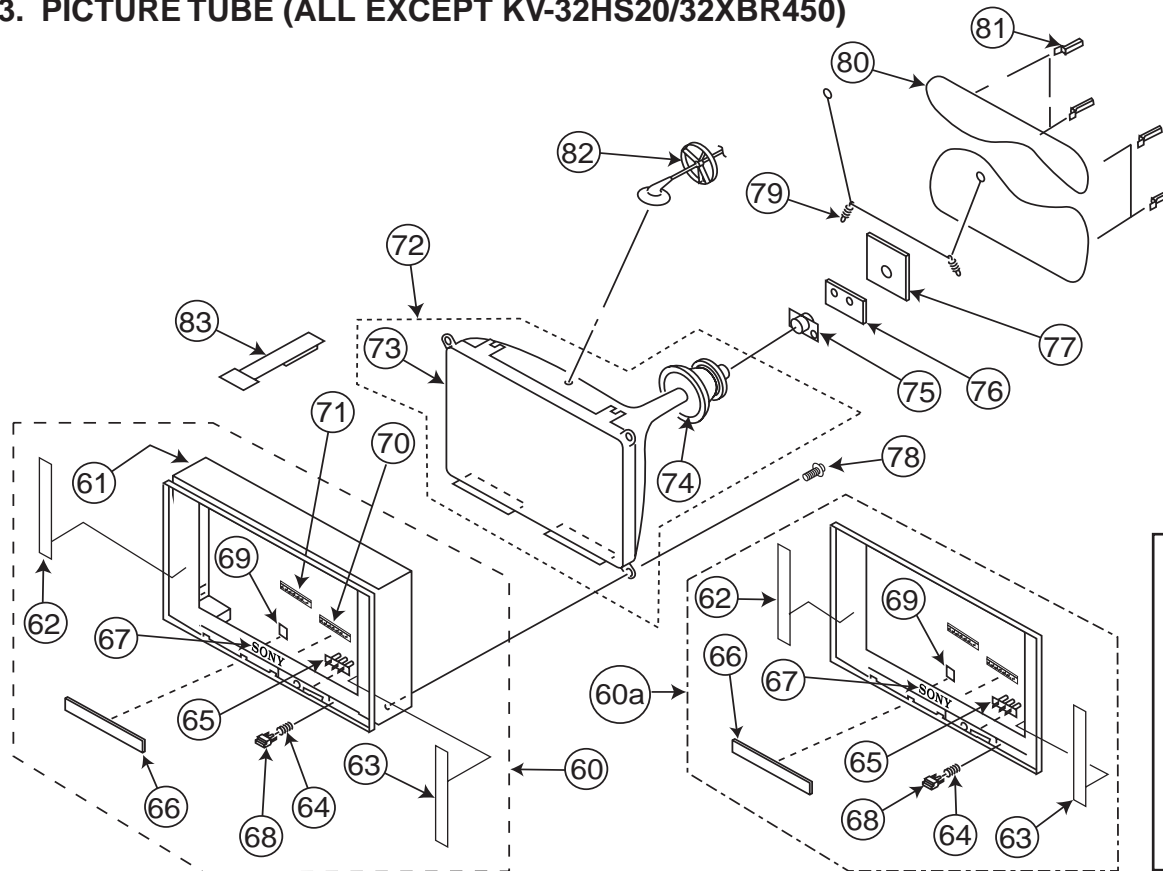
- When replacing the CRT, please order Item (30) in order to replace the entire Bezelnet.
- When replacing only the Bezel, please order Item (30a) only.

REF.NO.	PART NO.	DESCRIPTION	[Assembly Includes]	REF.NO.	PART NO.	DESCRIPTION
30	A-1017-303-A	BEZNET COMPLETE ASSY (KV-32XBR450 ONLY)	31-39	38	4-075-824-21	BUTTON, POWER (KV-32XBR450 ONLY)
30	X-4038-873-1	BEZNET ASSY (KV-32HS20 ONLY)	31-39	38	4-075-824-31	BUTTON, POWER (KV-32HS20 ONLY)
30a	A-1501-900-A	BEZEL COMPLETE ASSY (KV-32XBR450 ONLY)	32-39	39	4-076-673-03	DAMPER, DOOR
30a	X-4038-979-1	BEZEL ASSY (KV-32HS20 ONLY)	34-39	40	4-075-825-01	BUTTON, MULTI
* 31	4-075-820-01	CABINET		41	4-075-826-01	BUTTON, MENU
32		GRILL, SPEAKER (L) (KV-32XBR450 ONLY)		⚠ 42	8-735-047-05	CRT 34RSN
33		GRILL, SPEAKER (R) (KV-32XBR450 ONLY)		⚠ 43	8-451-512-21	DY Y34RSC-Y
34	4-042-593-11	SPRING, COMPRESSION		44	1-451-498-21	COIL, NA ROTATION
35	4-075-823-01	GUIDE, LED		⚠ 45	8-453-009-21	NA325-M2
36	4-075-822-21	DOOR, PAINTED (KV-32XBR450 ONLY)		* 46	A-1372-833-A	W BOARD, MOUNTED
36	4-075-822-31	DOOR, PAINTED (KV-32HS20 ONLY)		* 47	A-1332-075-A	C BOARD, MOUNTED
37	3-704-179-81	EMBLEM (NO.9), SONY (KV-32XBR450 ONLY)		48	4-053-005-01	SPACER, DY
37	3-704-179-02	EMBLEM (NO.9), SONY (KV-32HS20 ONLY)		49	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER
				50	4-036-329-01	SPRING (B), TENSION
				⚠ 51	1-416-827-21	COIL, DEGAUSSING
				52	4-065-895-11	HOLDER, DGC
				53	3-704-372-71	HOLDER, HV CABLE
				54	4-062-047-02	PIECE A(110), CONV CORRECT
				55	1-452-885-11	MAGNET, LANDING
				56	4-057-714-01	PIECE TLH CONVERGENCE

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

### 6-3. PICTURE TUBE (ALL EXCEPT KV-32HS20/32XBR450)





**NOTE:**


- When replacing the CRT, please order Item (60) in order to replace the entire Bezelnet.
- When replacing only the Bezel, please order Item (60a) only.

REF.NO.	PART NO.	DESCRIPTION	[Assembly Includes]	REF.NO.	PART NO.	DESCRIPTION	[Assembly Includes]
60	A-1017-301-A	BEZNET COMPLETE ASSY (KV-36XBR450/36XBR450H ONLY)	61-69	68	4-075-824-31	BUTTON, POWER (KV-36HS20/36HS20H ONLY)	
60	X-4038-872-1	BEZNET ASSY (KV-36HS20/36HS20H ONLY)	61-69	69	4-076-673-03	DAMPER, DOOR	
60a	A-1501-902-A	BEZEL COMPLETE ASSY (KV-36XBR450/36XBR450H ONLY)	62-69	70	4-075-825-01	BUTTON, MULTI	
60a	X-4038-981-1	BEZEL ASSY (KV-36HS20/36HS20H ONLY)	64-69	71	4-075-826-01	BUTTON, MENU	
61	4-075-832-01	CABINET		⚠ 72	8-735-048-62	ITC 38RSN-C1 (KV-36HS20/36XBR450 ONLY)	73-74
62		GRILL, SPEAKER (L) (KV-36XBR450/36XBR450H ONLY)		⚠ 72	8-735-081-62	ITC 38RSN-C1M (KV-36HS20H/36XBR450H ONLY)	73-74
63		GRILL, SPEAKER (R) (KV-36XBR450/36XBR450H ONLY)		⚠ 73	8-735-048-05	CRT 38RSN (KV-36HS20/36XBR450 ONLY)	
64	4-042-593-11	SPRING, COMPRESSION		⚠ 73	8-735-081-05	CRT 38RSN (KV-36HS20H/36XBR450H ONLY)	
65	4-075-823-01	GUIDE, LED		⚠ 74	8-451-516-11	DY Y38RSC-X	
66	4-075-822-21	DOOR, PAINTED (KV-36XBR450/36XBR450H ONLY)		⚠ 75	8-453-009-21	NA325-M2	
66	4-075-822-31	DOOR, PAINTED (KV-36HS20/36HS20H ONLY)		*	76	A-1372-833-A	W BOARD, MOUNTED
67	3-704-179-81	EMBLEM (NO.9), SONY (KV-36XBR450/36XBR450H ONLY)		*	77	A-1332-075-A	C BOARD, MOUNTED
67	3-704-179-02	EMBLEM (NO.9), SONY (KV-36HS20/36HS20H ONLY)		⚠ 78	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER	
68	4-075-824-21	BUTTON, POWER (KV-36XBR450/36XBR450H ONLY)		79	4-036-329-01	SPRING (B), TENSION	
				⚠ 80	1-416-828-41	COIL, DEGAUSS	
				81	4-065-895-11	HOLDER, DGC	
				82	3-704-372-71	HOLDER, HV CABLE	
				83	4-062-047-02	PIECE A(110), CONV CORRECT	

## SECTION 7: ELECTRICAL PARTS LIST

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

The components in this manual identified by the following symbol:  indicate parts that have been carefully factory-selected to satisfy regulations regarding X-ray radiation for each set.

Should replacement be required for one of these components, replace only with the value originally used.

\* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

## RESISTORS

- All resistors are in ohms
- F : nonflammable
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

BC

When ordering parts by reference number, please include the board name.

REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
<div>BC</div> <div>* A-1136-117-A BC BOARD, COMPLETE</div> <div>CAPACITOR</div>	C3500	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3531	1-165-319-11	CERAMIC CHIP	0.1μF	50V	
	C3501	1-163-231-11	CERAMIC CHIP	15pF	5% 50V	C3532	1-126-964-11	ELECT	10μF	20% 50V	
	C3502	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3533	1-163-133-00	CERAMIC CHIP	470pF	5% 50V	
	C3504	1-163-102-00	CERAMIC CHIP	24pF	5% 50V	C3534	1-126-960-11	ELECT	1μF	20% 50V	
	C3505	1-163-102-00	CERAMIC CHIP	24pF	5% 50V	C3535	1-163-231-11	CERAMIC CHIP	15pF	5% 50V	
	C3506	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3536	1-126-960-11	ELECT	1μF	20% 50V	
	C3507	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3537	1-126-964-11	ELECT	10μF	20% 50V	
	C3509	1-163-038-91	CERAMIC CHIP	0.1μF	25V	C3538	1-163-231-11	CERAMIC CHIP	15pF	5% 50V	
	C3510	1-163-131-00	CERAMIC CHIP	390pF	5% 50V	C3539	1-163-231-11	CERAMIC CHIP	15pF	5% 50V	
	C3511	1-163-038-91	CERAMIC CHIP	0.1μF	25V	C3541	1-163-106-00	CERAMIC CHIP	36pF	5% 50V	
	C3512	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3542	1-126-964-11	ELECT	10μF	20% 50V	
	C3513	1-216-295-91	SHORT			C3543	1-164-505-11	CERAMIC CHIP	2.2μF	16V	
	C3514	1-163-031-91	CERAMIC CHIP	0.01μF	50V	C3546	1-163-231-11	CERAMIC CHIP	15pF	5% 50V	
	C3515	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3547	1-126-934-11	ELECT	220μF	20% 10V	
	C3516	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3548	1-164-004-11	CERAMIC CHIP	0.1μF	10% 25V	
	C3517	1-126-924-11	ELECT	330μF	20% 6.3V	C3549	1-104-660-91	ELECT	47μF	20% 16V	
	C3518	1-163-038-91	CERAMIC CHIP	0.1μF	25V	C3550	1-163-031-91	CERAMIC CHIP	0.01μF	50V	
	C3519	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3551	1-104-660-91	ELECT	47μF	20% 16V	
	C3520	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3552	1-163-031-91	CERAMIC CHIP	0.01μF	50V	
	C3521	1-163-237-11	CERAMIC CHIP	27pF	5% 50V	C3553	1-163-031-91	CERAMIC CHIP	0.01μF	50V	
	C3522	1-104-660-91	ELECT	47μF	20% 16V	C3554	1-104-660-91	ELECT	47μF	20% 16V	
	C3523	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3555	1-126-934-11	ELECT	220μF	20% 10V	
	C3524	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3556	1-164-004-11	CERAMIC CHIP	0.1μF	10% 25V	
	C3525	1-163-038-91	CERAMIC CHIP	0.1μF	25V	C3557	1-163-031-91	CERAMIC CHIP	0.01μF	50V	
	C3526	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3558	1-104-660-91	ELECT	47μF	20% 16V	
	C3527	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3559	1-163-031-91	CERAMIC CHIP	0.01μF	50V	
	C3528	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3560	1-104-660-91	ELECT	47μF	20% 16V	
	C3529	1-165-319-11	CERAMIC CHIP	0.1μF	50V	C3561	1-163-031-91	CERAMIC CHIP	0.01μF	50V	
	C3530	1-104-660-91	ELECT	47μF	20% 16V	C3562	1-163-031-91	CERAMIC CHIP	0.01μF	50V	
						C3563	1-104-660-91	ELECT	47μF	20% 16V	
					C3564	1-104-660-91	ELECT	47μF	20% 16V		
					C3565	1-163-031-91	CERAMIC CHIP	0.01μF	50V		
					C3566	1-163-031-91	CERAMIC CHIP	0.01μF	50V		



REF.NO.	PART NO.	DESCRIPTION	VALUES	REF.NO.	PART NO.	DESCRIPTION	VALUES
<b><u>CONNECTOR</u></b>							
*	CN3500	1-691-632-21	CONNECTOR, BOARD TO BOARD 15P	Q3505	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
<b><u>FERRITE BEAD</u></b>				Q3506	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3500	1-414-234-22	FERRITE	0μH	Q3508	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3501	1-414-234-22	FERRITE	0μH	Q3509	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
FB3502	1-414-234-22	FERRITE	0μH	Q3510	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
FB3503	1-414-234-22	FERRITE	0μH	Q3511	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3504	1-414-234-22	FERRITE	0μH	Q3512	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3505	1-414-234-22	FERRITE	0μH	Q3513	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3506	1-414-234-22	FERRITE	0μH	Q3514	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
FB3507	1-414-234-22	FERRITE	0μH	Q3515	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3508	1-414-234-22	FERRITE	0μH	Q3516	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
FB3509	1-414-234-22	FERRITE	0μH	Q3517	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
<b><u>FILTER</u></b>				<b><u>RESISTOR</u></b>			
FL3500	1-239-848-21	FILTER, LOW PASS		R3503	1-216-017-91	RES-CHIP	47 5% 1/10W
FL3501	1-239-848-21	FILTER, LOW PASS		R3504	1-216-295-91	SHORT	
FL3502	1-239-848-21	FILTER, LOW PASS		R3505	1-216-295-91	SHORT	
FL3503	1-239-848-21	FILTER, LOW PASS		R3506	1-216-295-91	SHORT	
FL3504	1-233-512-21	FERRITE	37μH	R3507	1-216-295-91	SHORT	
FL3505	1-233-512-21	FERRITE	37μH	R3508	1-216-295-91	SHORT	
FL3506	1-233-512-21	FERRITE	37μH	R3509	1-216-049-11	RES-CHIP	1K 5% 1/10W
<b><u>IC</u></b>				R3510	1-216-041-00	RES-CHIP	470 5% 1/10W
IC3500	8-759-568-27	IC UPD424210LE-60-E2		R3511	1-216-041-00	RES-CHIP	470 5% 1/10W
IC3501	8-759-594-44	IC UPD64082GF-3BA		R3512	1-216-295-91	SHORT	
IC3502	8-759-583-47	IC UPC2933T-E1		R3514	1-216-025-11	RES-CHIP	100 5% 1/10W
<b><u>COIL</u></b>				R3515	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
L3500	1-414-265-21	INDUCTOR	4.7μH	R3516	1-216-055-00	RES-CHIP	1.8K 5% 1/10W
L3501	1-412-058-11	INDUCTOR	10μH	R3517	1-216-025-11	RES-CHIP	100 5% 1/10W
L3502	1-412-058-11	INDUCTOR	10μH	R3518	1-216-025-11	RES-CHIP	100 5% 1/10W
L3503	1-412-058-11	INDUCTOR	10μH	R3519	1-216-295-91	SHORT	
L3504	1-412-058-11	INDUCTOR	10μH	R3520	1-216-065-91	RES-CHIP	4.7K 5% 1/10W
L3505	1-412-058-11	INDUCTOR	10μH	R3521	1-216-041-00	RES-CHIP	470 5% 1/10W
<b><u>TRANSISTOR</u></b>				R3522	1-216-041-00	RES-CHIP	470 5% 1/10W
Q3500	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		R3523	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q3501	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3524	1-216-089-91	RES-CHIP	47K 5% 1/10W
Q3502	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		R3525	1-216-057-00	RES-CHIP	2.2K 5% 1/10W
Q3503	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		R3526	1-216-105-91	RES-CHIP	220K 5% 1/10W
Q3504	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		R3527	1-216-033-00	RES-CHIP	220 5% 1/10W
				R3528	1-208-776-11	METAL CHIP	560 0.50% 1/10W
				R3529	1-208-772-11	METAL CHIP	390 0.50% 1/10W
				R3530	1-216-067-00	RES-CHIP	5.6K 5% 1/10W
				R3531	1-216-049-11	RES-CHIP	1K 5% 1/10W
				R3532	1-216-025-11	RES-CHIP	100 5% 1/10W
				R3534	1-216-049-11	RES-CHIP	1K 5% 1/10W

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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C3041	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V	C3092	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3043	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3093	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3044	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3094	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3045	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3096	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3046	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C3097	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3047	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C3098	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3048	1-163-038-91	CERAMIC CHIP	0.1μF		25V	C3099	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C3049	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C3113	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3050	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C3114	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3051	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	C3115	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3054	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3116	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3055	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3117	1-126-603-11	ELECT CHIP	4.7μF	20%	35V
C3056	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3120	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C3057	1-126-603-11	ELECT CHIP	4.7μF	20%	35V	C3127	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3059	1-126-206-11	ELECT CHIP	100μF	20%	6.3V	C3128	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C3060	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3129	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C3061	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C3130	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C3062	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3131	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C3063	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3132	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3064	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3133	1-125-838-11	CERAMIC CHIP	2.2μF	10%	6.3V
C3066	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3134	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3067	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C3135	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3068	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C3136	1-107-823-11	CERAMIC CHIP	0.47μF	10%	16V
C3069	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3137	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C3070	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3138	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3071	1-162-916-11	CERAMIC CHIP	12pF	5%	50V	C3139	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V
C3072	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C3140	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3073	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3141	1-162-917-11	CERAMIC CHIP	15pF	5%	50V
C3074	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3142	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3075	1-164-315-11	CERAMIC CHIP	470pF	5%	50V	C3172	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3076	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C3173	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3078	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3204	1-126-193-11	ELECT CHIP	1μF	20%	50V
C3079	1-125-838-11	CERAMIC CHIP	2.2μF	10%	6.3V	C3205	1-117-681-11	ELECT CHIP	100μF	20%	16V
C3080	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3206	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C3081	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3208	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C3082	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3209	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3083	1-107-823-11	CERAMIC CHIP	0.47μF	10%	16V	C3210	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C3085	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	C3211	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V
C3086	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3212	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3087	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	C3213	1-117-681-11	ELECT CHIP	100μF	20%	16V
C3088	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3215	1-126-401-21	ELECT CHIP	1μF	20%	50V
C3089	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3216	1-126-193-11	ELECT CHIP	1μF	20%	50V
C3090	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3218	1-126-193-11	ELECT CHIP	1μF	20%	50V
C3091	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3219	1-126-193-11	ELECT CHIP	1μF	20%	50V



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C3220	1-128-993-21	ELECT CHIP	22μF	20%	10V	C3317	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3221	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3318	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3222	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3319	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3223	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3320	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3224	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3321	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3225	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3322	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3226	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3323	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3227	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3324	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3229	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3325	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3235	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3326	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3236	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3327	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3237	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3328	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3239	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3331	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3240	1-164-230-11	CERAMIC CHIP	220pF	5%	50V	C3332	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3241	1-164-361-11	CERAMIC CHIP	0.047μF		25V	C3333	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3242	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3335	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3243	1-126-193-11	ELECT CHIP	1μF	20%	50V	C3336	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3245	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3338	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3246	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3339	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3247	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3340	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3248	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3341	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3249	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3343	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3250	1-216-295-91	SHORT				C3344	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3251	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3345	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3252	1-216-295-91	SHORT				C3346	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3253	1-127-573-11	CERAMIC CHIP	1μF	10%	16V	C3347	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3254	1-127-573-11	CERAMIC CHIP	1μF	10%	16V	C3348	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3255	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C3349	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3301	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3350	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3302	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3351	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3303	1-126-206-11	ELECT CHIP	100μF	20%	6.3V	C3352	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3304	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3353	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3305	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3354	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3306	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3355	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3307	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3356	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3308	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3357	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3309	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3358	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3310	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3359	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3311	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3360	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3312	1-126-206-11	ELECT CHIP	100μF	20%	6.3V	C3361	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3313	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3362	1-127-760-11	CERAMIC CHIP	4.7μF	10%	6.3V
C3314	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3363	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3315	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3364	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3316	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3365	1-164-156-11	CERAMIC CHIP	0.1μF		25V



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C3366	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3433	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3367	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3434	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3368	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3435	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3369	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3436	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C3370	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3437	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3371	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3438	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3372	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3439	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3374	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3440	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C3375	1-127-760-11	CERAMIC CHIP	4.7μF	10%	6.3V	C3441	1-162-916-11	CERAMIC CHIP	12pF	5%	50V
C3376	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3442	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3377	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3443	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3378	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3444	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3379	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3445	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3401	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3446	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C3402	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3447	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3403	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3448	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V
C3404	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3449	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V
C3405	1-126-206-11	ELECT CHIP	100μF	20%	6.3V	C3450	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3406	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C3452	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3407	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C3453	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3408	1-126-206-11	ELECT CHIP	100μF	20%	6.3V	C3454	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3409	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3455	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3410	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3456	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3411	1-163-038-91	CERAMIC CHIP	0.1μF		25V	C3457	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3412	1-163-038-91	CERAMIC CHIP	0.1μF		25V	C3458	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3413	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3460	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C3414	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3462	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3415	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3463	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3416	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3464	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3417	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3465	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3418	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C3466	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3419	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3467	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3420	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3468	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C3421	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3469	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3422	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3470	1-126-206-11	ELECT CHIP	100μF	20%	6.3V
C3423	1-162-970-11	CERAMIC CHIP	0.01μF	10%	25V	C3473	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3424	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3474	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3425	1-107-823-11	CERAMIC CHIP	0.47μF	10%	16V	C3475	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3426	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3476	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3428	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C3477	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3429	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3478	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3430	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3479	1-124-779-00	ELECT CHIP	10μF	20%	16V
C3431	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3480	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3432	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	C3481	1-117-681-11	ELECT CHIP	100μF	20%	16V



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C3482	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3644	1-164-156-11	CERAMIC CHIP	0.1μF		25V
C3483	1-117-681-11	ELECT CHIP	100μF	20%	16V	C3652	1-162-974-11	CERAMIC CHIP	0.01μF		50V
C3484	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	C3653	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C3485	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3654	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C3486	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3655	1-164-816-11	CERAMIC CHIP	220pF	2%	50V
C3487	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3656	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C3488	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3657	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C3489	1-164-156-11	CERAMIC CHIP	0.1μF		25V	C3658	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V
C3490	1-124-779-00	ELECT CHIP	10μF	20%	16V	C3659	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3491	1-126-204-11	ELECT CHIP	47μF	20%	16V	C3660	1-126-204-11	ELECT CHIP	47μF	20%	16V
C3492	1-164-156-11	CERAMIC CHIP	0.1μF		25V	<b>CONNECTOR</b>					
C3493	1-126-204-11	ELECT CHIP	47μF	20%	16V	* CN3201	1-691-616-21	CONNECTOR, BOARD TO BOARD	15P		
C3494	1-164-156-11	CERAMIC CHIP	0.1μF		25V	CN3202	1-573-299-21	CONNECTOR, BOARD TO BOARD	10P		
C3495	1-124-779-00	ELECT CHIP	10μF	20%	16V	* CN3203	1-785-303-11	CONNECTOR, DIN (PLUG)	64P		
C3496	1-164-156-11	CERAMIC CHIP	0.1μF		25V	* CN3204	1-564-526-11	PLUG, CONNECTOR	11P		
C3604	1-124-779-00	ELECT CHIP	10μF	20%	16V	* CN3205	1-785-304-11	CONNECTOR, DIN (RECEPTACLE)	64		
C3605	1-164-156-11	CERAMIC CHIP	0.1μF		25V	<b>DIODE</b>					
C3606	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	D3001	8-719-978-33	DIODE UDZSTE-176.8B			
C3607	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	D3002	8-719-978-33	DIODE UDZSTE-176.8B			
C3608	1-163-275-11	CERAMIC CHIP	0.001μF	5%	50V	D3003	8-719-978-33	DIODE UDZSTE-176.8B			
C3609	1-162-968-11	CERAMIC CHIP	.0047μF	10%	50V	D3004	8-719-978-33	DIODE UDZSTE-176.8B			
C3610	1-126-204-11	ELECT CHIP	47μF	20%	16V	D3005	8-719-978-33	DIODE UDZSTE-176.8B			
C3611	1-164-156-11	CERAMIC CHIP	0.1μF		25V	D3006	8-719-978-33	DIODE UDZSTE-176.8B			
C3612	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	D3007	8-719-978-33	DIODE UDZSTE-176.8B			
C3613	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	D3089	8-719-800-76	DIODE MA153-TX			
C3618	1-124-779-00	ELECT CHIP	10μF	20%	16V	D3090	8-719-800-76	DIODE MA153-TX			
C3619	1-164-156-11	CERAMIC CHIP	0.1μF		25V	D3201	8-719-977-28	DIODE UDZSTE-1710B			
C3623	1-125-891-11	CERAMIC CHIP	0.47μF	10%	10V	D3202	8-719-977-28	DIODE UDZSTE-1710B			
C3624	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	D3204	8-719-977-28	DIODE UDZSTE-1710B			
C3625	1-163-275-11	CERAMIC CHIP	0.001μF	5%	50V	D3205	8-719-977-28	DIODE UDZSTE-1710B			
C3626	1-162-968-11	CERAMIC CHIP	.0047μF	10%	50V	D3206	8-719-977-28	DIODE UDZSTE-1710B			
C3627	1-126-204-11	ELECT CHIP	47μF	20%	16V	D3209	8-719-914-44	DIODE DAP202K-T-146			
C3628	1-164-156-11	CERAMIC CHIP	0.1μF		25V	D3210	8-719-041-97	DIODE MA113-(TX)			
C3629	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	D3211	8-719-404-50	DIODE MA111-TX			
C3630	1-162-917-11	CERAMIC CHIP	15pF	5%	50V	D3212	8-719-977-28	DIODE UDZSTE-1710B			
C3635	1-126-204-11	ELECT CHIP	47μF	20%	16V	D3213	8-719-977-28	DIODE UDZSTE-1710B			
C3636	1-125-837-91	CERAMIC CHIP	1μF	10%	6.3V	D3214	8-719-977-28	DIODE UDZSTE-1710B			
C3637	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	D3215	8-719-977-28	DIODE UDZSTE-1710B			
C3638	1-124-779-00	ELECT CHIP	10μF	20%	16V	D3216	8-719-977-28	DIODE UDZSTE-1710B			
C3639	1-164-156-11	CERAMIC CHIP	0.1μF		25V	D3217	8-719-977-28	DIODE UDZSTE-1710B			
C3640	1-162-964-11	CERAMIC CHIP	0.001μF	10%	50V	D3301	8-719-056-77	DIODE UDZ-TE-17-3.9B			
C3641	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V	D3401	8-719-914-43	DIODE DAN202K-T-146			
C3642	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V						
C3643	1-107-826-11	CERAMIC CHIP	0.1μF	10%	16V						



REF.NO.	PART NO.	DESCRIPTION	VALUES	REF.NO.	PART NO.	DESCRIPTION	VALUES
D3402	8-719-914-44	DIODE DAP202K-T-146		IC3404	8-759-669-75	IC TLC2932IPWR	
D3403	8-719-978-33	DIODE UDZSTE-176.8B		IC3405	8-759-485-79	IC TC7SET08FU(TE85R)	
<b>FERRITE BEAD</b>				IC3406	8-759-485-79	IC TC7SET08FU(TE85R)	
FB3201	1-414-234-22	FERRITE	0μH	IC3407	8-759-485-79	IC TC7SET08FU(TE85R)	
FB3202	1-414-234-22	FERRITE	0μH	IC3408	8-759-672-57	IC CXD9509AQ	
FB3203	1-216-295-91	SHORT		IC3409	8-749-015-18	IC PQ07VZ012P	
FB3204	1-414-234-22	FERRITE	0μH	IC3410	8-752-367-59	IC CXD2309Q	
FB3205	1-414-234-22	FERRITE	0μH	IC3411	8-759-082-57	IC TC7W04FU(TE12R)	
FB3206	1-414-234-22	FERRITE	0μH	IC3412	8-759-082-58	IC TC7W08FU(TE12R)	
FB3401	1-414-235-22	FERRITE	0μH	IC3413	8-759-595-97	IC SN74LV4053ANSR	
FB3402	1-414-235-22	FERRITE	0μH	IC3414	8-759-548-56	IC M52055FP	
FB3601	1-414-235-22	FERRITE	0μH	IC3601	8-752-916-40	IC CXP85840A-039Q	
<b>FILTER</b>				IC3602	8-752-916-40	IC CXP85840A-039Q	
FL3001	1-239-848-11	FILTER, LOW PASS		IC3603	8-752-395-13	IC CXD2085M-T4	
FL3002	1-239-848-11	FILTER, LOW PASS		IC3604	8-759-700-07	IC NJM2903M-TE2	
FL3003	1-781-923-11	FILTER, LOW PASS	(SMD)	<b>COIL</b>			
FL3004	1-239-848-11	FILTER, LOW PASS		L3001	1-216-295-91	SHORT	
FL3401	1-781-923-21	FILTER, LOW PASS	(SMD)	L3002	1-469-555-21	INDUCTOR	10μH
<b>IC</b>				L3003	1-469-555-21	INDUCTOR	10μH
IC3001	8-752-093-84	IC CXA2151Q		L3004	1-469-555-21	INDUCTOR	10μH
IC3002	8-759-595-97	IC SN74LV4053ANSR		L3005	1-469-555-21	INDUCTOR	10μH
IC3003	8-752-394-69	IC CXD2073Q-T4		L3049	1-469-555-21	INDUCTOR	10μH
IC3004	8-759-595-97	IC SN74LV4053ANSR		L3050	1-469-555-21	INDUCTOR	10μH
IC3048	8-752-089-50	IC CXA2103Q		L3051	1-469-555-21	INDUCTOR	10μH
IC3089	6-700-149-01	IC M24C04-MN6T(A)		L3089	1-414-233-22	FERRITE	0μH
IC3090	6-800-050-01	IC MB94918RpF-G-137-BND		L3112	1-469-555-21	INDUCTOR	10μH
IC3091	8-759-349-11	IC PST9145NL		L3113	1-469-555-21	INDUCTOR	10μH
IC3110	8-752-089-50	IC CXA2103Q		L3301	1-412-058-11	INDUCTOR	10μH
IC3201	8-752-080-04	IC CXA2069Q		L3302	1-469-555-21	INDUCTOR	10μH
IC3202	8-759-351-01	IC TEA6422DT		L3303	1-412-052-21	INDUCTOR	1μH
IC3203	8-759-331-71	IC NJM4558E(TE2)		L3304	1-469-555-21	INDUCTOR	10μH
IC3301	6-700-174-01	IC IS42S16100-7T		L3305	1-469-555-21	INDUCTOR	10μH
IC3302	8-749-015-18	IC PQ07VZ012P		L3306	1-469-561-21	INDUCTOR	100μH
IC3303	8-752-409-78	IC CXD2095AQ		L3307	1-469-555-21	INDUCTOR	10μH
IC3304	8-759-447-90	IC TLC5733AIPM		L3308	1-469-561-21	INDUCTOR	100μH
IC3305	8-759-669-75	IC TLC2932IPWR		L3309	1-469-561-21	INDUCTOR	100μH
IC3306	8-759-669-78	IC TLC2933IPWR-12		L3310	1-469-561-21	INDUCTOR	100μH
IC3401	8-749-015-18	IC PQ07VZ012P		L3311	1-469-561-21	INDUCTOR	100μH
IC3402	8-759-677-37	IC MT48LC2M32B2TG-6		L3312	1-469-555-21	INDUCTOR	10μH
IC3402	8-759-675-89	IC TC59S6432CFT-80(YB)		L3401	1-412-052-21	INDUCTOR	1μH
IC3403	8-759-460-29	IC PST9120NL		L3402	1-412-052-21	INDUCTOR	1μH
				L3403	1-469-561-21	INDUCTOR	100μH
				L3404	1-469-561-21	INDUCTOR	100μH



REF.NO.	PART NO.	DESCRIPTION	VALUES	REF.NO.	PART NO.	DESCRIPTION	VALUES
L3405	1-469-555-21	INDUCTOR	10μH	Q3037	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3406	1-469-555-21	INDUCTOR	10μH	Q3038	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3407	1-469-555-21	INDUCTOR	10μH	Q3039	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3409	1-469-555-21	INDUCTOR	10μH	Q3040	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3410	1-412-052-21	INDUCTOR	1μH	Q3049	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3411	1-412-058-11	INDUCTOR	10μH	Q3051	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
L3412	1-469-555-21	INDUCTOR	10μH	Q3053	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
L3413	1-469-555-21	INDUCTOR	10μH	Q3054	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3414	1-469-555-21	INDUCTOR	10μH	Q3056	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
L3416	1-469-555-21	INDUCTOR	10μH	Q3058	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
L3601	1-469-555-21	INDUCTOR	10μH	Q3089	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
L3602	1-412-951-11	INDUCTOR	10μH	Q3090	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
L3603	1-469-555-21	INDUCTOR	10μH	Q3091	1-801-806-11	TRANSISTOR DTC144EKA-T146	
L3604	1-412-951-11	INDUCTOR	10μH	Q3101	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3605	1-469-555-21	INDUCTOR	10μH	Q3102	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
L3606	1-469-555-21	INDUCTOR	10μH	Q3103	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
L3607	1-469-555-21	INDUCTOR	10μH	Q3104	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
L3608	1-414-754-11	INDUCTOR	10μH	Q3110	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
L3609	1-414-754-11	INDUCTOR	10μH	Q3111	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
				Q3112	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
	<b>TRANSISTOR</b>			Q3201	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3202	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3002	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3203	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3003	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		Q3204	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3205	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3006	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3206	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3007	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3207	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3008	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		Q3208	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3009	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		Q3209	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3010	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		Q3210	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3011	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		Q3211	1-801-806-11	TRANSISTOR DTC144EKA-T146	
Q3014	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		Q3213	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3015	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		Q3214	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3016	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		Q3215	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3017	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX		Q3216	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3018	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3217	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3021	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3301	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3022	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3302	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3023	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3303	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3025	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3304	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3026	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3305	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q3027	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3401	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q3035	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3402	8-729-028-28	TRANSISTOR 2SK2036(TE85L)	
Q3036	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX		Q3403	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
Q3404	8-729-028-28	TRANSISTOR 2SK2036(TE85L)				R3020	1-216-809-11	RES-CHIP	100	5%	1/16W
Q3405	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R3021	1-216-809-11	RES-CHIP	100	5%	1/16W
Q3406	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R3022	1-216-809-11	RES-CHIP	100	5%	1/16W
Q3407	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3023	1-216-833-11	RES-CHIP	10K	5%	1/16W
Q3408	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R3024	1-216-809-11	RES-CHIP	100	5%	1/16W
Q3409	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3025	1-216-809-11	RES-CHIP	100	5%	1/16W
Q3410	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R3026	1-216-035-00	RES-CHIP	270	5%	1/10W
Q3411	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R3027	1-218-684-11	METAL CHIP	470	0.50%	1/16W
Q3412	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R3028	1-218-688-11	METAL CHIP	680	0.50%	1/16W
Q3413	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R3029	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W
Q3414	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R3030	1-216-864-11	SHORT			
Q3415	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R3035	1-216-809-11	RES-CHIP	100	5%	1/16W
Q3603	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3036	1-216-809-11	RES-CHIP	100	5%	1/16W
Q3604	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3037	1-216-809-11	RES-CHIP	100	5%	1/16W
Q3605	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3038	1-218-686-11	METAL CHIP	560	0.50%	1/16W
Q3606	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3039	1-218-686-11	METAL CHIP	560	0.50%	1/16W
Q3609	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3040	1-218-686-11	METAL CHIP	560	0.50%	1/16W
Q3610	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3042	1-216-821-11	RES-CHIP	1K	5%	1/16W
Q3611	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3043	1-216-837-11	RES-CHIP	22K	5%	1/16W
Q3612	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3044	1-216-837-11	RES-CHIP	22K	5%	1/16W
Q3613	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3045	1-216-817-11	RES-CHIP	470	5%	1/16W
Q3617	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3046	1-216-817-11	RES-CHIP	470	5%	1/16W
Q3618	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3047	1-216-809-11	RES-CHIP	100	5%	1/16W
Q3619	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3048	1-216-809-11	RES-CHIP	100	5%	1/16W
Q3620	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R3049	1-216-809-11	RES-CHIP	100	5%	1/16W
<b>RESISTOR</b>						R3050	1-216-809-11	RES-CHIP	100	5%	1/16W
R3001	1-216-805-11	RES-CHIP	47	5%	1/16W	R3051	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3002	1-216-805-11	RES-CHIP	47	5%	1/16W	R3052	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3003	1-216-842-11	RES-CHIP	56K	5%	1/16W	R3053	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3004	1-216-818-11	RES-CHIP	560	5%	1/16W	R3056	1-216-817-11	RES-CHIP	470	5%	1/16W
R3005	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3057	1-216-817-11	RES-CHIP	470	5%	1/16W
R3006	1-216-817-11	RES-CHIP	470	5%	1/16W	R3058	1-216-835-11	RES-CHIP	15K	5%	1/16W
R3007	1-218-686-11	METAL CHIP	560	0.50%	1/16W	R3059	1-216-817-11	RES-CHIP	470	5%	1/16W
R3009	1-218-710-11	METAL CHIP	5.6K	0.50%	1/16W	R3060	1-216-809-11	RES-CHIP	100	5%	1/16W
R3010	1-218-716-11	METAL CHIP	10K	0.50%	1/16W	R3061	1-216-829-11	RES-CHIP	4.7K	5%	1/16W
R3011	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3062	1-218-697-11	METAL CHIP	1.6K	0.50%	1/16W
R3012	1-216-864-11	SHORT				R3063	1-218-716-11	METAL CHIP	10K	0.50%	1/16W
R3013	1-216-813-11	RES-CHIP	220	5%	1/16W	R3064	1-218-696-11	METAL CHIP	1.5K	0.50%	1/16W
R3014	1-218-676-11	METAL CHIP	220	0.50%	1/16W	R3066	1-216-809-11	RES-CHIP	100	5%	1/16W
R3015	1-216-864-11	SHORT				R3067	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3017	1-216-809-11	RES-CHIP	100	5%	1/16W	R3068	1-216-809-11	RES-CHIP	100	5%	1/16W
R3018	1-216-817-11	RES-CHIP	470	5%	1/16W	R3071	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3019	1-218-686-11	METAL CHIP	560	0.50%	1/16W	R3072	1-216-833-11	RES-CHIP	10K	5%	1/16W
						R3073	1-216-805-11	RES-CHIP	47	5%	1/16W



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R3074	1-216-805-11	RES-CHIP	47	5%	1/16W	R3130	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3075	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3131	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3076	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3132	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3077	1-216-809-11	RES-CHIP	100	5%	1/16W	R3133	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3078	1-216-832-11	RES-CHIP	8.2K	5%	1/16W	R3134	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3079	1-216-049-11	RES-CHIP	1K	5%	1/10W	R3135	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3080	1-216-845-11	RES-CHIP	100K	5%	1/16W	R3136	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3081	1-216-809-11	RES-CHIP	100	5%	1/16W	R3137	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3082	1-216-845-11	RES-CHIP	100K	5%	1/16W	R3138	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3083	1-216-864-11	SHORT				R3139	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3084	1-216-864-11	SHORT				R3140	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3085	1-216-864-11	SHORT				R3141	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3086	1-216-864-11	SHORT				R3142	1-216-805-11	RES-CHIP	47	5%	1/16W
R3087	1-216-864-11	SHORT				R3143	1-216-805-11	RES-CHIP	47	5%	1/16W
R3088	1-216-864-11	SHORT				R3144	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3089	1-216-864-11	SHORT				R3145	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3090	1-216-861-11	RES-CHIP	2.2M	5%	1/16W	R3146	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R3091	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3147	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3092	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3151	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3093	1-216-809-11	RES-CHIP	100	5%	1/16W	R3152	1-216-818-11	RES-CHIP	560	5%	1/16W
R3094	1-216-809-11	RES-CHIP	100	5%	1/16W	R3154	1-216-832-11	RES-CHIP	8.2K	5%	1/16W
R3095	1-216-845-11	RES-CHIP	100K	5%	1/16W	R3155	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3096	1-216-817-11	RES-CHIP	470	5%	1/16W	R3156	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3097	1-216-845-11	RES-CHIP	100K	5%	1/16W	R3157	1-216-817-11	RES-CHIP	470	5%	1/16W
R3098	1-216-805-11	RES-CHIP	47	5%	1/16W	R3158	1-216-817-11	RES-CHIP	470	5%	1/16W
R3099	1-216-805-11	RES-CHIP	47	5%	1/16W	R3159	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3100	1-216-809-11	RES-CHIP	100	5%	1/16W	R3160	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3101	1-216-809-11	RES-CHIP	100	5%	1/16W	R3161	1-216-809-11	RES-CHIP	100	5%	1/16W
R3102	1-216-809-11	RES-CHIP	100	5%	1/16W	R3162	1-216-815-11	RES-CHIP	330	5%	1/16W
R3103	1-216-837-11	RES-CHIP	22K	5%	1/16W	R3163	1-218-710-11	METAL CHIP	5.6K	0.50%	1/16W
R3104	1-216-809-11	RES-CHIP	100	5%	1/16W	R3164	1-218-710-11	METAL CHIP	5.6K	0.50%	1/16W
R3105	1-216-809-11	RES-CHIP	100	5%	1/16W	R3165	1-216-861-11	RES-CHIP	2.2M	5%	1/16W
R3106	1-216-837-11	RES-CHIP	22K	5%	1/16W	R3166	1-216-861-11	RES-CHIP	2.2M	5%	1/16W
R3107	1-216-864-11	SHORT				R3180	1-218-673-11	METAL CHIP	160	0.50%	1/16W
R3108	1-216-817-11	RES-CHIP	470	5%	1/16W	R3181	1-218-673-11	METAL CHIP	160	0.50%	1/16W
R3121	1-216-809-11	RES-CHIP	100	5%	1/16W	R3182	1-218-673-11	METAL CHIP	160	0.50%	1/16W
R3122	1-216-809-11	RES-CHIP	100	5%	1/16W	R3183	1-216-809-11	RES-CHIP	100	5%	1/16W
R3123	1-218-696-11	METAL CHIP	1.5K	0.50%	1/16W	R3184	1-216-809-11	RES-CHIP	100	5%	1/16W
R3124	1-218-696-11	METAL CHIP	1.5K	0.50%	1/16W	R3185	1-216-809-11	RES-CHIP	100	5%	1/16W
R3125	1-216-823-11	RES-CHIP	1.5K	5%	1/16W	R3186	1-218-674-11	METAL CHIP	180	0.50%	1/16W
R3126	1-216-823-11	RES-CHIP	1.5K	5%	1/16W	R3187	1-218-674-11	METAL CHIP	180	0.50%	1/16W
R3127	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R3188	1-218-674-11	METAL CHIP	180	0.50%	1/16W
R3128	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R3190	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3129	1-216-835-11	RES-CHIP	15K	5%	1/16W	R3191	1-218-694-11	METAL CHIP	1.2K	0.50%	1/16W



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R3192	1-216-814-11	RES-CHIP	270	5%	1/16W	R3246	1-216-809-11	RES-CHIP	100	5%	1/16W
R3193	1-218-698-11	METAL CHIP	1.8K	0.50%	1/16W	R3247	1-216-809-11	RES-CHIP	100	5%	1/16W
R3194	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3248	1-216-809-11	RES-CHIP	100	5%	1/16W
R3195	1-216-816-11	RES-CHIP	390	5%	1/16W	R3249	1-216-809-11	RES-CHIP	100	5%	1/16W
R3196	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3250	1-216-809-11	RES-CHIP	100	5%	1/16W
R3197	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3254	1-216-809-11	RES-CHIP	100	5%	1/16W
R3198	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3255	1-216-809-11	RES-CHIP	100	5%	1/16W
R3201	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3256	1-216-809-11	RES-CHIP	100	5%	1/16W
R3202	1-216-809-11	RES-CHIP	100	5%	1/16W	R3257	1-216-809-11	RES-CHIP	100	5%	1/16W
R3203	1-216-809-11	RES-CHIP	100	5%	1/16W	R3258	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3204	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3259	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3205	1-216-809-11	RES-CHIP	100	5%	1/16W	R3260	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3207	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3261	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3208	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3262	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3209	1-216-809-11	RES-CHIP	100	5%	1/16W	R3263	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3210	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3264	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3211	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3265	1-216-857-11	RES-CHIP	1M	5%	1/16W
R3212	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3266	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3213	1-216-809-11	RES-CHIP	100	5%	1/16W	R3267	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3215	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3268	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3216	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3269	1-216-809-11	RES-CHIP	100	5%	1/16W
R3217	1-216-809-11	RES-CHIP	100	5%	1/16W	R3270	1-249-382-11	CARBON	1.2	5%	1/4W
R3218	1-216-809-11	RES-CHIP	100	5%	1/16W	R3272	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3219	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3273	1-216-819-11	RES-CHIP	680	5%	1/16W
R3220	1-216-809-11	RES-CHIP	100	5%	1/16W	R3275	1-216-819-11	RES-CHIP	680	5%	1/16W
R3221	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3276	1-216-819-11	RES-CHIP	680	5%	1/16W
R3222	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3277	1-216-819-11	RES-CHIP	680	5%	1/16W
R3223	1-216-809-11	RES-CHIP	100	5%	1/16W	R3279	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3224	1-216-815-11	RES-CHIP	330	5%	1/16W	R3280	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3226	1-216-809-11	RES-CHIP	100	5%	1/16W	R3281	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3227	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3282	1-208-755-11	METAL CHIP	75	0.50%	1/10W
R3228	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3284	1-216-864-11	SHORT			
R3229	1-216-809-11	RES-CHIP	100	5%	1/16W	R3285	1-216-817-11	RES-CHIP	470	5%	1/16W
R3230	1-216-809-11	RES-CHIP	100	5%	1/16W	R3286	1-218-716-11	METAL CHIP	10K	0.50%	1/16W
R3231	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3287	1-216-817-11	RES-CHIP	470	5%	1/16W
R3232	1-216-809-11	RES-CHIP	100	5%	1/16W	R3288	1-218-686-11	METAL CHIP	560	0.50%	1/16W
R3233	1-216-809-11	RES-CHIP	100	5%	1/16W	R3289	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3234	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3290	1-216-809-11	RES-CHIP	100	5%	1/16W
R3235	1-216-809-11	RES-CHIP	100	5%	1/16W	R3291	1-216-842-11	RES-CHIP	56K	5%	1/16W
R3236	1-216-809-11	RES-CHIP	100	5%	1/16W	R3292	1-216-857-11	RES-CHIP	1M	5%	1/16W
R3240	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3293	1-216-803-11	RES-CHIP	33	5%	1/16W
R3241	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3294	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3242	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3296	1-216-845-11	RES-CHIP	100K	5%	1/16W
R3244	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3297	1-216-841-11	RES-CHIP	47K	5%	1/16W



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R3298	1-208-755-11	METAL CHIP	75	0.50%	1/10W	R3343	1-216-809-11	RES-CHIP	100	5%	1/16W
R3299	1-208-755-11	METAL CHIP	75	0.50%	1/10W	R3344	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3300	1-208-755-11	METAL CHIP	75	0.50%	1/10W	R3345	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W
R3301	1-216-809-11	RES-CHIP	100	5%	1/16W	R3346	1-216-809-11	RES-CHIP	100	5%	1/16W
R3302	1-218-684-11	METAL CHIP	470	0.50%	1/16W	R3347	1-216-815-11	RES-CHIP	330	5%	1/16W
R3303	1-218-712-11	METAL CHIP	6.8K	0.50%	1/16W	R3348	1-216-864-11	SHORT			
R3304	1-218-692-11	METAL CHIP	1K	0.50%	1/16W	R3349	1-218-687-11	METAL CHIP	620	0.50%	1/16W
R3305	1-216-809-11	RES-CHIP	100	5%	1/16W	R3350	1-216-814-11	RES-CHIP	270	5%	1/16W
R3306	1-216-809-11	RES-CHIP	100	5%	1/16W	R3351	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3307	1-216-864-11	SHORT				R3352	1-216-853-11	RES-CHIP	470K	5%	1/16W
R3308	1-216-864-11	SHORT				R3353	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3309	1-211-987-11	METAL CHIP	56	0.50%	1/16W	R3354	1-216-813-11	RES-CHIP	220	5%	1/16W
R3310	1-211-987-11	METAL CHIP	56	0.50%	1/16W	R3355	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3311	1-211-987-11	METAL CHIP	56	0.50%	1/16W	R3356	1-216-864-11	SHORT			
R3312	1-211-987-11	METAL CHIP	56	0.50%	1/16W	R3357	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R3313	1-216-835-11	RES-CHIP	15K	5%	1/16W	R3358	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R3314	1-211-990-11	METAL CHIP	75	0.50%	1/16W	R3359	1-218-676-11	METAL CHIP	220	0.50%	1/16W
R3315	1-216-835-11	RES-CHIP	15K	5%	1/16W	R3360	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3316	1-211-989-11	METAL CHIP	68	0.50%	1/16W	R3361	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3317	1-211-989-11	METAL CHIP	68	0.50%	1/16W	R3364	1-216-864-11	SHORT			
R3318	1-211-990-11	METAL CHIP	75	0.50%	1/16W	R3366	1-216-864-11	SHORT			
R3319	1-211-987-11	METAL CHIP	56	0.50%	1/16W	R3367	1-216-803-11	RES-CHIP	33	5%	1/16W
R3320	1-211-987-11	METAL CHIP	56	0.50%	1/16W	R3369	1-216-864-11	SHORT			
R3321	1-211-987-11	METAL CHIP	56	0.50%	1/16W	R3371	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R3322	1-211-987-11	METAL CHIP	56	0.50%	1/16W	R3372	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R3323	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3373	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R3324	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	R3382	1-216-864-11	SHORT			
R3325	1-216-827-11	RES-CHIP	3.3K	5%	1/16W	R3401	1-218-694-11	METAL CHIP	1.2K	0.50%	1/16W
R3326	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3403	1-218-692-11	METAL CHIP	1K	0.50%	1/16W
R3327	1-216-835-11	RES-CHIP	15K	5%	1/16W	R3404	1-216-864-11	SHORT			
R3328	1-216-864-11	SHORT				R3405	1-216-864-11	SHORT			
R3329	1-216-815-11	RES-CHIP	330	5%	1/16W	R3410	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3330	1-216-815-11	RES-CHIP	330	5%	1/16W	R3421	1-216-295-91	SHORT			
R3331	1-216-841-11	RES-CHIP	47K	5%	1/16W	R3422	1-216-295-91	SHORT			
R3332	1-218-272-11	RES-CHIP	5.1K	5%	1/16W	R3423	1-216-813-11	RES-CHIP	220	5%	1/16W
R3333	1-216-864-11	SHORT				R3429	1-216-823-11	RES-CHIP	1.5K	5%	1/16W
R3334	1-216-809-11	RES-CHIP	100	5%	1/16W	R3432	1-216-815-11	RES-CHIP	330	5%	1/16W
R3335	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3434	1-216-809-11	RES-CHIP	100	5%	1/16W
R3337	1-216-820-11	RES-CHIP	820	5%	1/16W	R3445	1-216-864-11	SHORT			
R3338	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3446	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3339	1-216-855-11	RES-CHIP	680K	5%	1/16W	R3447	1-216-819-11	RES-CHIP	680	5%	1/16W
R3340	1-216-855-11	RES-CHIP	680K	5%	1/16W	R3448	1-216-855-11	RES-CHIP	680K	5%	1/16W
R3341	1-216-813-11	RES-CHIP	220	5%	1/16W	R3452	1-216-295-91	SHORT			
R3342	1-220-158-11	RES-CHIP	3.6K	5%	1/16W	R3454	1-216-825-11	RES-CHIP	2.2K	5%	1/16W



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R3460	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3625	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3461	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3626	1-216-815-11	RES-CHIP	330	5%	1/16W
R3464	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3627	1-216-815-11	RES-CHIP	330	5%	1/16W
R3465	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3628	1-216-815-11	RES-CHIP	330	5%	1/16W
R3467	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R3630	1-216-809-11	RES-CHIP	100	5%	1/16W
R3470	1-216-809-11	RES-CHIP	100	5%	1/16W	R3639	1-216-864-11	SHORT			
R3471	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3640	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3472	1-216-801-11	RES-CHIP	22	5%	1/16W	R3641	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3475	1-216-809-11	RES-CHIP	100	5%	1/16W	R3642	1-216-833-11	RES-CHIP	10K	5%	1/16W
R3476	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3644	1-216-857-11	RES-CHIP	1M	5%	1/16W
R3477	1-218-701-11	METAL CHIP	2.4K	0.50%	1/16W	R3645	1-216-821-11	RES-CHIP	1K	5%	1/16W
R3478	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R3646	1-216-813-11	RES-CHIP	220	5%	1/16W
R3483	1-218-701-11	METAL CHIP	2.4K	0.50%	1/16W	R3647	1-216-809-11	RES-CHIP	100	5%	1/16W
R3484	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3648	1-216-805-11	RES-CHIP	47	5%	1/16W
R3485	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3649	1-216-805-11	RES-CHIP	47	5%	1/16W
R3486	1-216-801-11	RES-CHIP	22	5%	1/16W	R3650	1-216-817-11	RES-CHIP	470	5%	1/16W
R3489	1-216-864-11	SHORT				R3651	1-216-809-11	RES-CHIP	100	5%	1/16W
R3490	1-216-864-11	SHORT				R3652	1-216-813-11	RES-CHIP	220	5%	1/16W
R3491	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3653	1-216-813-11	RES-CHIP	220	5%	1/16W
R3492	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R3654	1-216-813-11	RES-CHIP	220	5%	1/16W
R3493	1-218-701-11	METAL CHIP	2.4K	0.50%	1/16W	R3655	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3495	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3656	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3496	1-216-801-11	RES-CHIP	22	5%	1/16W	R3657	1-216-825-11	RES-CHIP	2.2K	5%	1/16W
R3497	1-216-829-11	RES-CHIP	4.7K	5%	1/16W	R3658	1-216-815-11	RES-CHIP	330	5%	1/16W
R3498	1-216-818-11	RES-CHIP	560	5%	1/16W	R3659	1-216-815-11	RES-CHIP	330	5%	1/16W
R3499	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3660	1-216-815-11	RES-CHIP	330	5%	1/16W
R3602	1-216-809-11	RES-CHIP	100	5%	1/16W	R3661	1-216-809-11	RES-CHIP	100	5%	1/16W
R3606	1-216-864-11	SHORT				R3662	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3609	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3663	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3610	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3664	1-216-841-11	RES-CHIP	47K	5%	1/16W
R3611	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3665	1-216-817-11	RES-CHIP	470	5%	1/16W
R3612	1-216-857-11	RES-CHIP	1M	5%	1/16W	R3666	1-216-809-11	RES-CHIP	100	5%	1/16W
R3613	1-216-821-11	RES-CHIP	1K	5%	1/16W	R3667	1-216-839-11	RES-CHIP	33K	5%	1/16W
R3614	1-216-813-11	RES-CHIP	220	5%	1/16W	R3668	1-216-797-11	RES-CHIP	10	5%	1/16W
R3615	1-216-809-11	RES-CHIP	100	5%	1/16W	R3669	1-216-809-11	RES-CHIP	100	5%	1/16W
R3616	1-216-805-11	RES-CHIP	47	5%	1/16W	R3672	1-216-864-11	SHORT			
R3617	1-216-805-11	RES-CHIP	47	5%	1/16W	R3673	1-216-809-11	RES-CHIP	100	5%	1/16W
R3618	1-216-817-11	RES-CHIP	470	5%	1/16W	R3674	1-216-813-11	RES-CHIP	220	5%	1/16W
R3619	1-216-809-11	RES-CHIP	100	5%	1/16W	R3675	1-216-813-11	RES-CHIP	220	5%	1/16W
R3620	1-216-813-11	RES-CHIP	220	5%	1/16W	R3676	1-216-809-11	RES-CHIP	100	5%	1/16W
R3621	1-216-813-11	RES-CHIP	220	5%	1/16W	R3677	1-216-809-11	RES-CHIP	100	5%	1/16W
R3622	1-216-813-11	RES-CHIP	220	5%	1/16W	R3678	1-216-809-11	RES-CHIP	100	5%	1/16W
R3623	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3679	1-216-809-11	RES-CHIP	100	5%	1/16W
R3624	1-216-825-11	RES-CHIP	2.2K	5%	1/16W	R3680	1-216-833-11	RES-CHIP	10K	5%	1/16W



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R3681	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3829	1-218-684-11	METAL CHIP	470	0.50%	1/16W
R3682	1-216-837-11	RES-CHIP	22K	5%	1/16W	R3830	1-218-684-11	METAL CHIP	470	0.50%	1/16W
R3683	1-216-837-11	RES-CHIP	22K	5%	1/16W	R3831	1-216-864-11	SHORT			
R3684	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3832	1-216-864-11	SHORT			
R3685	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3833	1-216-864-11	SHORT			
R3686	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3840	1-216-807-11	RES-CHIP	68	5%	1/16W
R3687	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3843	1-218-694-11	METAL CHIP	1.2K	0.50%	1/16W
R3688	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3844	1-218-712-11	METAL CHIP	6.8K	0.50%	1/16W
R3689	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3845	1-218-692-11	METAL CHIP	1K	0.50%	1/16W
R3690	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3846	1-216-801-11	RES-CHIP	22	5%	1/16W
R3691	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3847	1-216-801-11	RES-CHIP	22	5%	1/16W
R3692	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3848	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3693	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3849	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R3694	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3850	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R3695	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3851	1-216-809-11	RES-CHIP	100	5%	1/16W
R3696	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3852	1-218-675-11	METAL CHIP	200	0.50%	1/16W
R3697	1-216-833-11	RES-CHIP	10K	5%	1/16W	R3854	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3698	1-216-845-11	RES-CHIP	100K	5%	1/16W	R3857	1-216-809-11	RES-CHIP	100	5%	1/16W
R3699	1-216-845-11	RES-CHIP	100K	5%	1/16W	R3858	1-218-704-11	METAL CHIP	3.3K	0.50%	1/16W
R3800	1-216-864-11	SHORT				R3862	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R3802	1-208-762-11	METAL CHIP	150	0.50%	1/10W	R3863	1-218-700-11	METAL CHIP	2.2K	0.50%	1/16W
R3803	1-208-762-11	METAL CHIP	150	0.50%	1/10W	R3864	1-216-827-11	RES-CHIP	3.3K	5%	1/16W
R3804	1-208-762-11	METAL CHIP	150	0.50%	1/10W	R3865	1-216-809-11	RES-CHIP	100	5%	1/16W
R3805	1-208-762-11	METAL CHIP	150	0.50%	1/10W	R3866	1-414-234-22	FERRITE	0μH		
R3806	1-218-662-11	METAL CHIP	56	0.50%	1/16W	R3867	1-414-234-22	FERRITE	0μH		
R3807	1-208-754-11	METAL CHIP	68	0.50%	1/10W	R3868	1-414-234-22	FERRITE	0μH		
R3808	1-208-755-11	METAL CHIP	75	0.50%	1/10W	R3869	1-218-719-11	METAL CHIP	13K	0.50%	1/16W
R3809	1-208-755-11	METAL CHIP	75	0.50%	1/10W	R3870	1-218-719-11	METAL CHIP	13K	0.50%	1/16W
R3810	1-208-758-11	METAL CHIP	100	0.50%	1/10W	R3871	1-218-719-11	METAL CHIP	13K	0.50%	1/16W
R3811	1-216-809-11	RES-CHIP	100	5%	1/16W	R3872	1-211-990-11	METAL CHIP	75	0.50%	1/16W
R3812	1-216-809-11	RES-CHIP	100	5%	1/16W	R3873	1-211-990-11	METAL CHIP	75	0.50%	1/16W
R3813	1-216-809-11	RES-CHIP	100	5%	1/16W	R3874	1-211-990-11	METAL CHIP	75	0.50%	1/16W
R3814	1-211-969-11	METAL CHIP	10	0.50%	1/16W	R3876	1-208-762-11	METAL CHIP	150	0.50%	1/10W
R3815	1-211-973-11	METAL CHIP	15	0.50%	1/16W	R3901	1-216-035-00	RES-CHIP	270	5%	1/10W
R3816	1-211-977-11	METAL CHIP	22	0.50%	1/16W	R3902	1-216-035-00	RES-CHIP	270	5%	1/10W
R3817	1-211-977-11	METAL CHIP	22	0.50%	1/16W	R3903	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3820	1-218-684-11	METAL CHIP	470	0.50%	1/16W	R3904	1-216-837-11	RES-CHIP	22K	5%	1/16W
R3821	1-218-684-11	METAL CHIP	470	0.50%	1/16W	R3905	1-216-809-11	RES-CHIP	100	5%	1/16W
R3822	1-218-684-11	METAL CHIP	470	0.50%	1/16W	R3906	1-216-809-11	RES-CHIP	100	5%	1/16W
R3823	1-216-826-11	RES-CHIP	2.7K	5%	1/16W	R3907	1-216-809-11	RES-CHIP	100	5%	1/16W
R3824	1-216-826-11	RES-CHIP	2.7K	5%	1/16W	R3908	1-216-809-11	RES-CHIP	100	5%	1/16W
R3825	1-216-826-11	RES-CHIP	2.7K	5%	1/16W	R3909	1-216-809-11	RES-CHIP	100	5%	1/16W
R3826	1-216-809-11	RES-CHIP	100	5%	1/16W	R3910	1-216-809-11	RES-CHIP	100	5%	1/16W
R3828	1-218-684-11	METAL CHIP	470	0.50%	1/16W	R3914	1-216-864-11	SHORT			

**A**



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C023	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V	C238	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C025	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V	C239	1-126-964-11	ELECT	10μF	20%	50V
C027	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V	C240	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C028	1-126-933-11	ELECT	100μF	20%	16V	C241	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C030	1-104-665-11	ELECT	100μF	20%	10V	C242	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C032	1-126-933-11	ELECT	100μF	20%	16V	C243	1-107-823-11	CERAMIC CHIP	0.47μF	10%	16V
C035	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V	C244	1-163-017-00	CERAMIC CHIP	.0047μF	10%	50V
C037	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C245	1-107-823-11	CERAMIC CHIP	0.47μF	10%	16V
C038	1-126-935-11	ELECT	470μF	20%	16V	C246	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C039	1-126-964-11	ELECT	10μF	20%	50V	C247	1-126-933-11	ELECT	100μF	20%	16V
C041	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V	C248	1-127-760-11	CERAMIC CHIP	4.7μF	10%	6.3V
C048	1-126-964-11	ELECT	10μF	20%	50V	C249	1-126-967-11	ELECT	47μF	20%	50V
C051	1-107-714-11	ELECT	10μF	20%	16V	C250	1-107-823-11	CERAMIC CHIP	0.47μF	10%	16V
C052	1-107-714-11	ELECT	10μF	20%	16V	C251	1-115-340-11	CERAMIC CHIP	0.22μF	10%	25V
C115	1-163-001-11	CERAMIC CHIP	220pF	10%	50V	C252	1-126-933-11	ELECT	100μF	20%	16V
C116	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V	C253	1-163-009-91	CERAMIC CHIP	0.001μF	10%	50V
C117	1-164-346-11	CERAMIC CHIP	1μF		16V	C254	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C119	1-163-001-11	CERAMIC CHIP	220pF	10%	50V	C255	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C120	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V	C256	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C121	1-164-346-11	CERAMIC CHIP	1μF		16V	C257	1-127-760-11	CERAMIC CHIP	4.7μF	10%	6.3V
C205	1-115-340-11	CERAMIC CHIP	0.22μF	10%	25V	C258	1-164-346-11	CERAMIC CHIP	1μF		16V
C210	1-127-760-11	CERAMIC CHIP	4.7μF	10%	6.3V	C259	1-115-340-11	CERAMIC CHIP	0.22μF	10%	25V
C211	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C260	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C212	1-126-933-11	ELECT	100μF	20%	16V	C261	1-126-933-11	ELECT	100μF	20%	16V
C213	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V	C262	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C214	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C701	1-164-489-11	CERAMIC CHIP	0.22μF	10%	16V
C216	1-126-933-11	ELECT	100μF	20%	16V	C702	1-104-660-91	ELECT	47μF	20%	16V
C217	1-107-823-11	CERAMIC CHIP	0.47μF	10%	16V	C703	1-104-660-91	ELECT	47μF	20%	16V
C219	1-164-344-11	CERAMIC CHIP	0.068μF	10%	25V	C705	1-164-346-11	CERAMIC CHIP	1μF		16V
C220	1-107-823-11	CERAMIC CHIP	0.47μF	10%	16V	C708	1-164-346-11	CERAMIC CHIP	1μF		16V
C221	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C710	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C222	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C711	1-163-227-11	CERAMIC CHIP	10pF	0.50pF	50V
C224	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C712	1-104-660-91	ELECT	47μF	20%	16V
C225	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C713	1-164-690-91	CERAMIC CHIP	0.0022μF	5%	50V
C226	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C715	1-126-964-11	ELECT	10μF	20%	50V
C227	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C717	1-163-031-91	CERAMIC CHIP	0.01μF		50V
C229	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C718	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C230	1-107-823-11	CERAMIC CHIP	0.47μF	10%	16V	C719	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C232	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C720	1-126-935-11	ELECT	470μF	20%	16V
C233	1-164-492-11	CERAMIC CHIP	0.15μF	10%	16V	C721	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C234	1-125-838-11	CERAMIC CHIP	2.2μF	10%	6.3V	C722	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C235	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V	C724	1-126-961-11	ELECT	2.2μF	20%	50V
C236	1-126-964-11	ELECT	10μF	20%	50V	C731	1-163-009-91	CERAMIC CHIP	0.001μF	10%	50V
C237	1-126-933-11	ELECT	100μF	20%	16V	C732	1-163-251-11	CERAMIC CHIP	100pF	5%	50V

NOTE: The components identified by shading and  $\triangle$  mark are critical for safety. Replace only with part number specified.


NOTE: Les composants identifiés par un trame et une marque  $\triangle$  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C733	1-163-031-91	CERAMIC CHIP	0.01 $\mu$ F		50V	C7013	1-164-182-11	CERAMIC CHIP	0.0033 $\mu$ F	10%	50V
C735	1-163-275-11	CERAMIC CHIP	0.001 $\mu$ F	5%	50V	C7014	1-163-989-11	CERAMIC CHIP	0.033 $\mu$ F	10%	25V
C747	1-126-767-11	ELECT	1000 $\mu$ F	20%	16V	C7015	1-163-989-11	CERAMIC CHIP	0.033 $\mu$ F	10%	25V
C748	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F	10%	50V	C7016	1-126-959-11	ELECT	0.47 $\mu$ F	20%	50V
$\triangle$ C6002	1-136-346-21	MYLAR	0.22 $\mu$ F	20%	125V	C7017	1-126-963-11	ELECT	4.7 $\mu$ F	20%	50V
C6003	1-117-227-11	MYLAR	1 $\mu$ F	10%	450V	C7018	1-136-169-00	FILM	0.22 $\mu$ F	5%	50V
C6004	1-126-961-11	ELECT	2.2 $\mu$ F	20%	50V	C7019	1-163-017-00	CERAMIC CHIP	.0047 $\mu$ F	10%	50V
C6005	1-126-961-11	ELECT	2.2 $\mu$ F	20%	50V	C7020	1-163-989-11	CERAMIC CHIP	0.033 $\mu$ F	10%	25V
C6006	1-126-967-11	ELECT	47 $\mu$ F	20%	50V	C7021	1-164-182-11	CERAMIC CHIP	0.0033 $\mu$ F	10%	50V
C6007	1-163-009-91	CERAMIC CHIP	0.001 $\mu$ F	10%	50V	C7022	1-163-989-11	CERAMIC CHIP	0.033 $\mu$ F	10%	25V
C6008	1-126-968-11	ELECT	100 $\mu$ F	20%	50V	C7023	1-126-935-11	ELECT	470 $\mu$ F	20%	16V
C6009	1-104-664-11	ELECT	47 $\mu$ F	20%	25V	C7024	1-126-935-11	ELECT	470 $\mu$ F	20%	16V
C6011	1-126-968-11	ELECT	100 $\mu$ F	20%	50V	C7025	1-126-960-11	ELECT	1 $\mu$ F	20%	50V
C6013	1-119-887-51	CERAMIC	1000pF	20%	250V	C7026	1-126-960-11	ELECT	1 $\mu$ F	20%	50V
C6014	1-135-945-21	FILM	10000pF	3%	800V	C7028	1-136-165-00	FILM	0.1 $\mu$ F	5%	50V
C6015	1-137-399-11	MYLAR	0.1 $\mu$ F	5%	100V	C7029	1-163-009-91	CERAMIC CHIP	0.001 $\mu$ F	10%	50V
C6017	1-125-969-91	CERAMIC	680pF	10%	1KV	C7030	1-126-953-11	ELECT	2200 $\mu$ F	20%	35V
C6018	1-126-929-11	ELECT	4700 $\mu$ F	20%	10V	C7032	1-163-038-91	CERAMIC CHIP	0.1 $\mu$ F		25V
C6019	1-128-546-11	ELECT	10000 $\mu$ F	20%	10V	C7033	1-126-934-11	ELECT	220 $\mu$ F	20%	16V
C6020	1-126-936-11	ELECT	3300 $\mu$ F	20%	16V	C7034	1-136-165-00	FILM	0.1 $\mu$ F	5%	50V
C6021	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F	10%	50V	C7035	1-136-165-00	FILM	0.1 $\mu$ F	5%	50V
C6026	1-126-933-11	ELECT	100 $\mu$ F	20%	16V	C7036	1-126-942-61	ELECT	1000 $\mu$ F	20%	25V
C6027	1-163-021-91	CERAMIC CHIP	0.01 $\mu$ F	10%	50V	C7037	1-136-160-00	FILM	0.039 $\mu$ F	5%	50V
$\triangle$ C6029	1-136-311-11	MYLAR	0.47 $\mu$ F	20%	125V	C7038	1-126-942-61	ELECT	1000 $\mu$ F	20%	25V
C6030	1-126-935-11	ELECT	470 $\mu$ F	20%	16V	C7039	1-136-160-00	FILM	0.039 $\mu$ F	5%	50V
C6033	1-126-941-11	ELECT	470 $\mu$ F	20%	25V	C7056	1-126-953-11	ELECT	2200 $\mu$ F	20%	35V
C6045	1-126-926-11	ELECT	1000 $\mu$ F	20%	10V	C7057	1-126-953-11	ELECT	2200 $\mu$ F	20%	35V
C6048	1-126-767-11	ELECT	1000 $\mu$ F	20%	16V	C7058	1-126-960-11	ELECT	1 $\mu$ F	20%	50V
C6057	1-126-916-11	ELECT	1000 $\mu$ F	20%	6.3V	C7059	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F	10%	25V
C6059	1-126-971-11	ELECT	470 $\mu$ F	20%	50V	C7061	1-126-964-11	ELECT	10 $\mu$ F	20%	50V
C6060	1-135-573-91	ELECT	1500 $\mu$ F	20%	25V	C7062	1-163-009-91	CERAMIC CHIP	0.001 $\mu$ F	10%	50V
C6061	1-126-960-11	ELECT	1 $\mu$ F	20%	50V	C7063	1-136-165-00	FILM	0.1 $\mu$ F	5%	50V
C6062	1-104-664-11	ELECT	47 $\mu$ F	20%	25V	C7064	1-126-953-11	ELECT	2200 $\mu$ F	20%	35V
C6063	1-136-479-11	FILM	0.001 $\mu$ F	2%	50V	C7066	1-136-165-00	FILM	0.1 $\mu$ F	5%	50V
C6064	1-126-964-11	ELECT	10 $\mu$ F	20%	50V	C7067	1-136-165-00	FILM	0.1 $\mu$ F	5%	50V
C6065	1-126-933-11	ELECT	100 $\mu$ F	20%	16V	C7069	1-136-165-00	FILM	0.1 $\mu$ F	5%	50V
C7001	1-126-961-11	ELECT	2.2 $\mu$ F	20%	50V	C7070	1-136-165-00	FILM	0.1 $\mu$ F	5%	50V
C7006	1-126-767-11	ELECT	1000 $\mu$ F	20%	16V	C7071	1-137-437-11	MYLAR	0.0056 $\mu$ F	5%	50V
C7007	1-136-169-00	FILM	0.22 $\mu$ F	5%	50V	C7072	1-137-437-11	MYLAR	0.0056 $\mu$ F	5%	50V
C7008	1-126-767-11	ELECT	1000 $\mu$ F	20%	16V	C7074	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F	10%	25V
C7009	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F	10%	25V	C7075	1-164-004-11	CERAMIC CHIP	0.1 $\mu$ F	10%	25V
C7010	1-126-963-11	ELECT	4.7 $\mu$ F	20%	50V	C7076	1-126-968-11	ELECT	100 $\mu$ F	20%	50V
C7011	1-126-959-11	ELECT	0.47 $\mu$ F	20%	50V	C7077	1-126-960-11	ELECT	1 $\mu$ F	20%	50V
C7012	1-163-017-00	CERAMIC CHIP	.0047 $\mu$ F	10%	50V	C7078	1-126-960-11	ELECT	1 $\mu$ F	20%	50V

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**NOTE:** The components identified by shading and  mark are critical for safety. Replace only with part number specified.

**NOTE:** Les composants identifiés par un trame et une marque  sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.




REF.NO.	PART NO.	DESCRIPTION	VALUES
D7003	8-719-914-43	DIODE DAN202K-T-146	
D7004	8-719-914-44	DIODE DAP202K-T-146	
D7005	8-719-071-74	DIODE HZU11B1TRF	
D7009	8-719-404-50	DIODE MA111-TX	
D7010	8-719-404-50	DIODE MA111-TX	
D7011	8-719-404-50	DIODE MA111-TX	
D7012	8-719-404-50	DIODE MA111-TX	
D7013	8-719-041-97	DIODE MA113-(TX)	
D7014	8-719-924-13	DIODE MTZJ-T-77-22B	
D7015	8-719-924-13	DIODE MTZJ-T-77-22B	
D7016	8-719-041-97	DIODE MA113-(TX)	
D7017	8-719-041-97	DIODE MA113-(TX)	
D7103	8-719-404-50	DIODE MA111-TX	
FUSE			
F6001	1-532-506-51	FUSE	6.3A/250V
FERRITE BEAD			
FB6001	1-412-911-11	FERRITE	0μH
FB6003	1-412-911-11	FERRITE	0μH
FB6004	1-412-911-11	FERRITE	0μH
FB6005	1-412-911-11	FERRITE	0μH
FB6007	1-412-911-11	FERRITE	0μH
FB6012	1-412-911-11	FERRITE	0μH
FB6013	1-412-911-11	FERRITE	0μH
FUSE HOLDER			
FH6001	1-533-223-11	HOLDER, FUSE	
FH6002	1-533-223-11	HOLDER, FUSE	
IC			
IC201	8-752-100-25	IC CXA2150AQ	
IC701	6-800-051-01	IC M306V2ME-153FP	
IC702	8-759-349-11	IC PST9145NL	
IC707	8-759-672-78	IC M24C08-BN6(A)	
IC6001	8-759-670-30	IC MCZ3001D	
IC6002	8-759-140-85	IC UPC1093J-T	
IC6003	8-759-520-49	IC PQ30RV21	
IC6007	8-759-513-71	IC PQ05RF21	
IC6010	8-759-653-07	IC PQ09RD21	
IC6011	8-759-450-47	IC BA05T	
IC7001	8-759-678-92	IC BH3868AFS-E2	
IC7002	8-759-246-70	IC TA8216H	
IC7005	8-759-246-70	IC TA8216H	
IC7006	8-759-331-71	IC NJM4558E(TE2)	
IC7007	8-759-331-71	IC NJM4558E(TE2)	
COIL			
L001	1-469-320-21	INDUCTOR	100μH
L002	1-469-320-21	INDUCTOR	100μH
L003	1-469-317-21	INDUCTOR	10μH
L004	1-469-320-21	INDUCTOR	100μH
L005	1-469-320-21	INDUCTOR	100μH
L006	1-469-317-21	INDUCTOR	10μH
L201	1-469-317-21	INDUCTOR	10μH
L202	1-469-317-21	INDUCTOR	10μH
L203	1-469-317-21	INDUCTOR	10μH
L701	1-412-911-11	FERRITE	0μH
L702	1-412-911-11	FERRITE	0μH
L703	1-414-179-21	INDUCTOR	2.2μH
L6001	1-406-665-11	INDUCTOR	100μH
L6002	1-406-659-11	INDUCTOR	10μH
L6003	1-406-659-11	INDUCTOR	10μH
L6004	1-412-525-31	INDUCTOR	10μH
L6006	1-412-519-11	INDUCTOR	3.3μH
L6007	1-412-519-11	INDUCTOR	3.3μH
L6008	1-469-317-21	INDUCTOR	10μH
L7002	1-414-187-11	INDUCTOR	47μH
PHOTO COUPLER			
PH6001	8-749-924-35	PHOTO COUPLER	ON3171-R
TRANSISTOR			
Q001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q002	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q004	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q012	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q015	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q027	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX	
Q203	8-729-122-63	TRANSISTOR 2SA1226-T1E4	
Q204	8-729-122-63	TRANSISTOR 2SA1226-T1E4	
Q207	8-729-122-63	TRANSISTOR 2SA1226-T1E4	
Q208	8-729-122-63	TRANSISTOR 2SA1226-T1E4	
Q209	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q211	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q212	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX	
Q214	1-801-806-11	TRANSISTOR DTC144EKA-T146	




REF.NO.	PART NO.	DESCRIPTION	VALUES				REF.NO.	PART NO.	DESCRIPTION	VALUES			
Q216	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX					R009	1-216-017-91	RES-CHIP	47	5%	1/10W	
Q217	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R010	1-216-073-91	RES-CHIP	10K	5%	1/10W	
Q701	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX					R011	1-216-113-00	RES-CHIP	470K	5%	1/10W	
Q702	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R012	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	
Q703	1-801-806-11	TRANSISTOR DTC144EKA-T146					R013	1-216-081-00	RES-CHIP	22K	5%	1/10W	
Q704	1-801-806-11	TRANSISTOR DTC144EKA-T146					R014	1-216-085-91	RES-CHIP	33K	5%	1/10W	
Q705	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX					R015	1-208-776-11	METAL CHIP	560	0.50%	1/10W	
Q706	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX					R016	1-216-025-11	RES-CHIP	100	5%	1/10W	
Q707	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R017	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	
Q709	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX					R037	1-216-295-91	SHORT				
Q710	8-729-027-23	TRANSISTOR DTA114EKA-T146					R039	1-216-025-11	RES-CHIP	100	5%	1/10W	
Q712	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R042	1-216-025-11	RES-CHIP	100	5%	1/10W	
Q717	1-801-806-11	TRANSISTOR DTC144EKA-T146					R049	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	
Q721	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R052	1-216-085-91	RES-CHIP	33K	5%	1/10W	
Q723	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R055	1-216-081-00	RES-CHIP	22K	5%	1/10W	
Q724	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R061	1-208-776-11	METAL CHIP	560	0.50%	1/10W	
Q726	8-729-901-47	TRANSISTOR DTA143EKA-T146					R065	1-216-025-11	RES-CHIP	100	5%	1/10W	
Q727	8-729-901-47	TRANSISTOR DTA143EKA-T146					R082	1-216-073-91	RES-CHIP	10K	5%	1/10W	
Q728	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R083	1-216-073-91	RES-CHIP	10K	5%	1/10W	
Q729	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R160	1-216-113-00	RES-CHIP	470K	5%	1/10W	
Q730	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX					R163	1-216-642-11	METAL CHIP	430	0.50%	1/10W	
Q731	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX					R164	1-216-041-00	RES-CHIP	470	5%	1/10W	
Q6001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R165	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	
Q6002	8-729-027-23	TRANSISTOR DTA114EKA-T146					R166	1-216-097-11	RES-CHIP	100K	5%	1/10W	
Q6007	8-729-052-29	TRANSISTOR 2SK2876-01MR-F122					R167	1-216-121-11	RES-CHIP	1M	5%	1/10W	
Q6008	8-729-052-29	TRANSISTOR 2SK2876-01MR-F122					R168	1-216-073-91	RES-CHIP	10K	5%	1/10W	
Q6009	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX					R169	1-216-073-91	RES-CHIP	10K	5%	1/10W	
Q6010	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R170	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	
Q7001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					R171	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	
Q7004	8-729-900-53	TRANSISTOR DTC114EKA-T146					R172	1-216-097-11	RES-CHIP	100K	5%	1/10W	
Q7005	8-729-900-53	TRANSISTOR DTC114EKA-T146					R173	1-216-121-11	RES-CHIP	1M	5%	1/10W	
Q7009	8-729-900-53	TRANSISTOR DTC114EKA-T146					R174	1-216-073-91	RES-CHIP	10K	5%	1/10W	
Q7010	8-729-900-53	TRANSISTOR DTC114EKA-T146					R175	1-216-073-91	RES-CHIP	10K	5%	1/10W	
Q7013	8-729-900-53	TRANSISTOR DTC114EKA-T146					R176	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	
Q7014	8-729-900-53	TRANSISTOR DTC114EKA-T146					R204	1-216-073-91	RES-CHIP	10K	5%	1/10W	
Q7015	8-729-900-53	TRANSISTOR DTC114EKA-T146					R205	1-216-025-11	RES-CHIP	100	5%	1/10W	
Q7016	8-729-900-53	TRANSISTOR DTC114EKA-T146					R206	1-208-752-11	METAL CHIP	56	0.50%	1/10W	
<b>RESISTOR</b>							R207	1-249-413-11	CARBON	470	5%	1/4W	
R004	1-216-049-11	RES-CHIP	1K	5%	1/10W		R208	1-216-295-91	SHORT				
R005	1-216-049-11	RES-CHIP	1K	5%	1/10W		R210	1-216-025-11	RES-CHIP	100	5%	1/10W	
R006	1-216-295-91	SHORT					R211	1-208-752-11	METAL CHIP	56	0.50%	1/10W	
R007	1-216-017-91	RES-CHIP	47	5%	1/10W		R215	1-249-413-11	CARBON	470	5%	1/4W	
R008	1-216-073-91	RES-CHIP	10K	5%	1/10W		R219	1-216-025-11	RES-CHIP	100	5%	1/10W	
							R220	1-208-752-11	METAL CHIP	56	0.50%	1/10W	







REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R221	1-249-413-11	CARBON	470	5%	1/4W	R275	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R223	1-216-025-11	RES-CHIP	100	5%	1/10W	R276	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R224	1-216-025-11	RES-CHIP	100	5%	1/10W	R277	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R226	1-216-073-91	RES-CHIP	10K	5%	1/10W	R278	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R228	1-216-025-11	RES-CHIP	100	5%	1/10W	R280	1-216-295-91	SHORT			
R229	1-216-025-11	RES-CHIP	100	5%	1/10W	R281	1-216-295-91	SHORT			
R230	1-216-025-11	RES-CHIP	100	5%	1/10W	R282	1-216-295-91	SHORT			
R231	1-216-025-11	RES-CHIP	100	5%	1/10W	R283	1-216-295-91	SHORT			
R232	1-216-025-11	RES-CHIP	100	5%	1/10W	R284	1-216-295-91	SHORT			
R233	1-216-025-11	RES-CHIP	100	5%	1/10W	R701	1-216-089-91	RES-CHIP	47K	5%	1/10W
R234	1-216-025-11	RES-CHIP	100	5%	1/10W	R702	1-216-097-11	RES-CHIP	100K	5%	1/10W
R235	1-216-025-11	RES-CHIP	100	5%	1/10W	R703	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R236	1-216-025-11	RES-CHIP	100	5%	1/10W	R704	1-216-073-91	RES-CHIP	10K	5%	1/10W
R237	1-216-025-11	RES-CHIP	100	5%	1/10W	R705	1-216-101-00	RES-CHIP	150K	5%	1/10W
R238	1-216-025-11	RES-CHIP	100	5%	1/10W	R706	1-216-073-91	RES-CHIP	10K	5%	1/10W
R239	1-216-059-00	RES-CHIP	2.7K	5%	1/10W	R707	1-216-097-11	RES-CHIP	100K	5%	1/10W
R240	1-216-061-91	RES-CHIP	3.3K	5%	1/10W	R708	1-216-025-11	RES-CHIP	100	5%	1/10W
R241	1-216-133-91	RES-CHIP	3.3M	5%	1/10W	R709	1-216-097-11	RES-CHIP	100K	5%	1/10W
R242	1-216-075-00	RES-CHIP	12K	5%	1/10W	R710	1-216-073-91	RES-CHIP	10K	5%	1/10W
R243	1-216-073-91	RES-CHIP	10K	5%	1/10W	R711	1-216-073-91	RES-CHIP	10K	5%	1/10W
R244	1-216-025-11	RES-CHIP	100	5%	1/10W	R712	1-216-049-11	RES-CHIP	1K	5%	1/10W
R245	1-216-073-91	RES-CHIP	10K	5%	1/10W	R713	1-216-025-11	RES-CHIP	100	5%	1/10W
R246	1-216-073-91	RES-CHIP	10K	5%	1/10W	R714	1-216-025-11	RES-CHIP	100	5%	1/10W
R247	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R719	1-216-049-11	RES-CHIP	1K	5%	1/10W
R248	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R721	1-216-049-11	RES-CHIP	1K	5%	1/10W
R249	1-216-025-11	RES-CHIP	100	5%	1/10W	R727	1-216-049-11	RES-CHIP	1K	5%	1/10W
R250	1-216-097-11	RES-CHIP	100K	5%	1/10W	R729	1-216-049-11	RES-CHIP	1K	5%	1/10W
R251	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R731	1-216-073-91	RES-CHIP	10K	5%	1/10W
R252	1-216-025-11	RES-CHIP	100	5%	1/10W	R740	1-216-073-91	RES-CHIP	10K	5%	1/10W
R253	1-216-043-91	RES-CHIP	560	5%	1/10W	R741	1-216-073-91	RES-CHIP	10K	5%	1/10W
R255	1-216-025-11	RES-CHIP	100	5%	1/10W	R742	1-216-041-00	RES-CHIP	470	5%	1/10W
R256	1-216-041-00	RES-CHIP	470	5%	1/10W	R743	1-216-025-11	RES-CHIP	100	5%	1/10W
R257	1-216-017-91	RES-CHIP	47	5%	1/10W	R744	1-216-049-11	RES-CHIP	1K	5%	1/10W
R258	1-216-017-91	RES-CHIP	47	5%	1/10W	R748	1-216-081-00	RES-CHIP	22K	5%	1/10W
R259	1-216-017-91	RES-CHIP	47	5%	1/10W	R749	1-216-049-11	RES-CHIP	1K	5%	1/10W
R260	1-216-037-00	RES-CHIP	330	5%	1/10W	R754	1-216-025-11	RES-CHIP	100	5%	1/10W
R261	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	R755	1-216-025-11	RES-CHIP	100	5%	1/10W
R262	1-216-025-11	RES-CHIP	100	5%	1/10W	R756	1-216-025-11	RES-CHIP	100	5%	1/10W
R263	1-216-071-00	RES-CHIP	8.2K	5%	1/10W	R757	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R264	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R758	1-216-025-11	RES-CHIP	100	5%	1/10W
R265	1-216-073-91	RES-CHIP	10K	5%	1/10W	R762	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R266	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R763	1-216-295-91	SHORT			
R267	1-216-073-91	RES-CHIP	10K	5%	1/10W	R764	1-216-049-11	RES-CHIP	1K	5%	1/10W
R274	1-216-025-11	RES-CHIP	100	5%	1/10W	R767	1-216-049-11	RES-CHIP	1K	5%	1/10W


NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.







REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R769	1-216-049-11	RES-CHIP	1K	5%	1/10W	R828	1-216-073-91	RES-CHIP	10K	5%	1/10W
R771	1-216-049-11	RES-CHIP	1K	5%	1/10W	R829	1-216-073-91	RES-CHIP	10K	5%	1/10W
R772	1-216-081-00	RES-CHIP	22K	5%	1/10W	R830	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R773	1-216-081-00	RES-CHIP	22K	5%	1/10W	R834	1-216-041-00	RES-CHIP	470	5%	1/10W
R774	1-216-081-00	RES-CHIP	22K	5%	1/10W	R836	1-216-049-11	RES-CHIP	1K	5%	1/10W
R776	1-216-049-11	RES-CHIP	1K	5%	1/10W	R837	1-216-025-11	RES-CHIP	100	5%	1/10W
R777	1-216-073-91	RES-CHIP	10K	5%	1/10W	R838	1-216-049-11	RES-CHIP	1K	5%	1/10W
R780	1-216-073-91	RES-CHIP	10K	5%	1/10W	R839	1-216-025-11	RES-CHIP	100	5%	1/10W
R781	1-216-025-11	RES-CHIP	100	5%	1/10W	R841	1-216-033-00	RES-CHIP	220	5%	1/10W
R784	1-216-025-11	RES-CHIP	100	5%	1/10W	R842	1-216-081-00	RES-CHIP	22K	5%	1/10W
R785	1-216-049-11	RES-CHIP	1K	5%	1/10W	R843	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R787	1-216-121-11	RES-CHIP	1M	5%	1/10W	R847	1-216-025-11	RES-CHIP	100	5%	1/10W
R788	1-216-295-91	SHORT				R848	1-216-025-11	RES-CHIP	100	5%	1/10W
R789	1-216-041-00	RES-CHIP	470	5%	1/10W	R849	1-216-295-91	SHORT			
R791	1-216-025-11	RES-CHIP	100	5%	1/10W	R850	1-216-295-91	SHORT			
R792	1-216-053-00	RES-CHIP	1.5K	5%	1/10W	R851	1-216-295-91	SHORT			
R793	1-216-053-00	RES-CHIP	1.5K	5%	1/10W	R852	1-216-049-11	RES-CHIP	1K	5%	1/10W
R794	1-216-017-91	RES-CHIP	47	5%	1/10W	R853	1-216-295-91	SHORT			
R795	1-216-025-11	RES-CHIP	100	5%	1/10W	R854	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R796	1-216-295-91	SHORT				R856	1-216-049-11	RES-CHIP	1K	5%	1/10W
R797	1-216-017-91	RES-CHIP	47	5%	1/10W	R857	1-216-025-11	RES-CHIP	100	5%	1/10W
R798	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R858	1-216-295-91	SHORT			
R799	1-216-049-11	RES-CHIP	1K	5%	1/10W	R859	1-216-295-91	SHORT			
R800	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R860	1-216-689-11	RES-CHIP	39K	5%	1/10W
R801	1-216-025-11	RES-CHIP	100	5%	1/10W	R861	1-216-689-11	RES-CHIP	39K	5%	1/10W
R802	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R862	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R803	1-216-017-91	RES-CHIP	47	5%	1/10W	R863	1-216-049-11	RES-CHIP	1K	5%	1/10W
R804	1-216-037-00	RES-CHIP	330	5%	1/10W	R864	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R805	1-216-037-00	RES-CHIP	330	5%	1/10W	R865	1-216-295-91	SHORT			
R806	1-216-037-00	RES-CHIP	330	5%	1/10W	R866	1-216-295-91	SHORT			
R807	1-216-017-91	RES-CHIP	47	5%	1/10W	R867	1-216-081-00	RES-CHIP	22K	5%	1/10W
R808	1-216-049-11	RES-CHIP	1K	5%	1/10W	R6001	1-216-073-91	RES-CHIP	10K	5%	1/10W
R812	1-216-049-11	RES-CHIP	1K	5%	1/10W	 R6002	1-249-393-11	CARBON	10	5%	1/4W
R813	1-216-049-11	RES-CHIP	1K	5%	1/10W	 R6003	1-219-776-11	CARBON	2.2M	10%	1/2W
R814	1-216-025-11	RES-CHIP	100	5%	1/10W	R6004	1-216-121-11	RES-CHIP	1M	5%	1/10W
R815	1-216-025-11	RES-CHIP	100	5%	1/10W	 R6006	1-220-926-11	FUSIBLE	0.47	10%	1/2W
R816	1-216-025-11	RES-CHIP	100	5%	1/10W	R6007	1-215-481-00	METAL	330K	1%	1/4W
R817	1-216-025-11	RES-CHIP	100	5%	1/10W	R6008	1-215-481-00	METAL	330K	1%	1/4W
R818	1-216-025-11	RES-CHIP	100	5%	1/10W	R6009	1-215-481-00	METAL	330K	1%	1/4W
R819	1-216-037-00	RES-CHIP	330	5%	1/10W	R6010	1-249-393-11	CARBON	10	5%	1/4W
R822	1-216-037-00	RES-CHIP	330	5%	1/10W	R6011	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R824	1-216-061-91	RES-CHIP	3.3K	5%	1/10W	R6012	1-216-049-11	RES-CHIP	1K	5%	1/10W
R825	1-216-025-11	RES-CHIP	100	5%	1/10W	R6015	1-216-049-11	RES-CHIP	1K	5%	1/10W
R827	1-216-061-91	RES-CHIP	3.3K	5%	1/10W	R6019	1-216-073-91	RES-CHIP	10K	5%	1/10W


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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R6020	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R7016	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6021	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W	R7017	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6022	1-208-803-11	METAL CHIP	7.5K	0.50%	1/10W	R7018	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6025	1-249-417-11	CARBON	1K	5%	1/4W	R7019	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6029	1-216-105-91	RES-CHIP	220K	5%	1/10W	R7021	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6038	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	R7022	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6039	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	R7023	1-249-385-11	CARBON	2.2	5%	1/4W
R6040	1-208-840-11	METAL CHIP	270K	0.50%	1/10W	R7024	1-216-049-11	RES-CHIP	1K	5%	1/10W
 R6041	1-240-241-11	CEMENTED	0.47	5%	20W	R7025	1-216-049-11	RES-CHIP	1K	5%	1/10W
 R6042	1-240-241-11	CEMENTED	0.47	5%	20W	R7026	1-249-385-11	CARBON	2.2	5%	1/4W
R6043	1-211-964-11	METAL CHIP	33	0.50%	1/10W	R7045	1-216-081-00	RES-CHIP	22K	5%	1/10W
R6044	1-249-393-11	CARBON	10	5%	1/4W	R7046	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6046	1-216-073-91	RES-CHIP	10K	5%	1/10W	R7047	1-216-041-00	RES-CHIP	470	5%	1/10W
R6047	1-216-041-00	RES-CHIP	470	5%	1/10W	R7048	1-216-041-00	RES-CHIP	470	5%	1/10W
R6049	1-216-363-00	METAL OXIDE	0.33	5%	2W	R7051	1-216-295-91	SHORT			
R6050	1-216-363-00	METAL OXIDE	0.33	5%	2W	R7052	1-216-077-91	RES-CHIP	15K	5%	1/10W
R6051	1-249-393-11	CARBON	10	5%	1/4W	R7053	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6052	1-216-073-91	RES-CHIP	10K	5%	1/10W	R7054	1-216-295-91	SHORT			
R6053	1-215-907-11	METAL OXIDE	22	5%	3W	R7055	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R6055	1-216-295-91	SHORT				R7056	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R6056	1-208-810-11	METAL CHIP	15K	0.50%	1/10W	R7058	1-249-429-11	CARBON	10K	5%	1/4W
R6058	1-208-758-11	METAL CHIP	100	0.50%	1/10W	R7059	1-249-385-11	CARBON	2.2	5%	1/4W
R6059	1-249-417-11	CARBON	1K	5%	1/4W	R7060	1-249-385-11	CARBON	2.2	5%	1/4W
R6062	1-216-295-91	SHORT				R7061	1-216-295-91	SHORT			
R6063	1-216-073-91	RES-CHIP	10K	5%	1/10W	R7063	1-216-689-11	RES-CHIP	39K	5%	1/10W
R6064	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R7064	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6065	1-216-049-11	RES-CHIP	1K	5%	1/10W	R7065	1-216-041-00	RES-CHIP	470	5%	1/10W
 R6066	1-216-343-00	METAL OXIDE	0.33	5%	1W	R7067	1-216-049-11	RES-CHIP	1K	5%	1/10W
R6067	1-216-049-11	RES-CHIP	1K	5%	1/10W	R7068	1-216-041-00	RES-CHIP	470	5%	1/10W
R6068	1-249-433-11	CARBON	22K	5%	1/4W	R7070	1-216-689-11	RES-CHIP	39K	5%	1/10W
R7002	1-216-097-11	RES-CHIP	100K	5%	1/10W	R7071	1-216-121-11	RES-CHIP	1M	5%	1/10W
R7003	1-216-689-11	RES-CHIP	39K	5%	1/10W	R7083	1-249-429-11	CARBON	10K	5%	1/4W
R7004	1-216-689-11	RES-CHIP	39K	5%	1/10W	R7086	1-216-295-91	SHORT			
R7005	1-216-121-11	RES-CHIP	1M	5%	1/10W	R7088	1-216-295-91	SHORT			
R7006	1-216-089-91	RES-CHIP	47K	5%	1/10W	R7090	1-216-089-91	RES-CHIP	47K	5%	1/10W
R7007	1-216-017-91	RES-CHIP	47	5%	1/10W	R7091	1-216-081-00	RES-CHIP	22K	5%	1/10W
R7008	1-216-085-91	RES-CHIP	33K	5%	1/10W	R7092	1-216-025-11	RES-CHIP	100	5%	1/10W
R7009	1-216-295-91	SHORT				R7093	1-216-025-11	RES-CHIP	100	5%	1/10W
R7010	1-216-295-91	SHORT				R7094	1-216-081-00	RES-CHIP	22K	5%	1/10W
R7011	1-216-061-91	RES-CHIP	3.3K	5%	1/10W	R7095	1-216-089-91	RES-CHIP	47K	5%	1/10W
R7012	1-216-061-91	RES-CHIP	3.3K	5%	1/10W	R7096	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R7013	1-216-077-91	RES-CHIP	15K	5%	1/10W	R7097	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R7014	1-249-429-11	CARBON	10K	5%	1/4W	R7098	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R7015	1-249-429-11	CARBON	10K	5%	1/4W	R7099	1-216-065-91	RES-CHIP	4.7K	5%	1/10W


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**A** **C**


REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R7100	1-216-081-00	RES-CHIP	22K	5%	1/10W	C9011	1-161-830-00	CERAMIC	.0047μF		500V
R7101	1-216-081-00	RES-CHIP	22K	5%	1/10W	C9012	1-161-830-00	CERAMIC	.0047μF		500V
R7103	1-216-049-11	RES-CHIP	1K	5%	1/10W	C9013	1-163-035-00	CERAMIC CHIP	0.047μF		50V
R7104	1-216-295-91	SHORT				C9014	1-161-830-00	CERAMIC	.0047μF		500V
						C9015	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V
<b>RELAY</b>						C9018	1-107-961-91	ELECT	10μF	20%	250V
 RY6001	1-755-389-11	RELAY (AC POWER)				C9019	1-163-035-00	CERAMIC CHIP	0.047μF		50V
<b>TRANSFORMER</b>						C9020	1-107-961-91	ELECT	10μF	20%	250V
 T6001	1-433-404-11	TRANSFORMER, LINE FILTER				C9021	1-107-961-91	ELECT	10μF	20%	250V
 T6002	1-435-675-11	TRANSFORMER, STANDBY				C9022	1-101-004-00	CERAMIC	0.01μF		50V
T6003	1-435-577-11	TRANSFORMER, CONVERTER (PIT)				C9023	1-101-004-00	CERAMIC	0.01μF		50V
<b>THERMISTOR</b>						C9024	1-163-035-00	CERAMIC CHIP	0.047μF		50V
 TH6002	1-803-970-11	THERMISTOR, POSITIVE				C9025	1-104-653-11	ELECT	220μF	20%	16V
<b>TUNER</b>						C9026	1-163-035-00	CERAMIC CHIP	0.047μF		50V
 TU001	8-598-501-30	TUNER, FSS BTF-FA402				C9027	1-101-004-00	CERAMIC	0.01μF		50V
 TU002	8-598-542-20	TUNER, FSS BTF-WA412				C9028	1-163-017-00	CERAMIC CHIP	.0047μF	10%	50V
<b>VARISTOR</b>						C9029	1-163-017-00	CERAMIC CHIP	.0047μF	10%	50V
 VD6001	1-801-074-11	VARISTOR ERZV10D271				C9030	1-163-017-00	CERAMIC CHIP	.0047μF	10%	50V
<b>CRYSTAL</b>						C9031	1-162-116-00	CERAMIC	680pF	10%	2KV
X201	1-760-895-21	VIBRATOR, CERAMIC				C9032	1-162-116-00	CERAMIC	680pF	10%	2KV
X702	1-781-931-21	VIBRATOR, CRYSTAL				C9033	1-107-662-11	ELECT	22μF	20%	250V
<b>C BOARD, MOUNTED</b>						C9035	1-126-933-11	ELECT	100μF	20%	16V
	7-682-647-09	SCREW +PS 3X6				C9036	1-126-964-11	ELECT	10μF	20%	50V
<b>CAPACITOR</b>						C9037	1-126-961-11	ELECT	2.2μF	20%	50V
C9001	1-126-940-11	ELECT	330μF	20%	25V	C9038	1-126-963-11	ELECT	4.7μF	20%	50V
C9002	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V	C9042	1-126-940-11	ELECT	330μF	20%	25V
C9003	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V	C9046	1-126-933-11	ELECT	100μF	20%	16V
C9004	1-162-114-00	CERAMIC	.0047μF		2KV	C9047	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C9005	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V	<b>CONNECTOR</b>					
C9006	1-163-217-11	CERAMIC CHIP	1pF	0.25pF	50V	* CN9001	1-764-333-11	PLUG,CONNECTOR		10P	
C9007	1-163-217-11	CERAMIC CHIP	1pF	0.25pF	50V	* CN9002	1-766-242-11	PIN,CONNECTOR (PC BOARD)		4P	
C9008	1-163-222-11	CERAMIC CHIP	5pF	0.25pF	50V	CN9003	1-695-915-11	TAB (CONTACT)			
C9009	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V	CN9004	1-695-915-11	TAB (CONTACT)			
C9010	1-163-087-00	CERAMIC CHIP	4pF	0.25pF	50V	<b>DIODE</b>					
						D9001	8-719-991-33	DIODE 1SS133T-77			
						D9002	8-719-400-75	DIODE MA3091-TX			
						D9003	8-719-991-33	DIODE 1SS133T-77			
						D9005	8-719-404-50	DIODE MA111-TX			
						D9006	8-719-051-85	DIODE HSS83TD			
						D9007	8-719-051-85	DIODE HSS83TD			
						D9008	8-719-051-85	DIODE HSS83TD			
						D9009	8-719-908-03	DIODE GP08DPKG23			
						D9010	8-719-110-17	DIODE MTZJ-T-77-10			


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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
D9013	8-719-991-33	DIODE 1SS133T-77				R9014	1-249-409-11	CARBON	220	5%	1/4W
D9014	8-719-991-33	DIODE 1SS133T-77				R9015	1-249-409-11	CARBON	220	5%	1/4W
D9015	8-719-991-33	DIODE 1SS133T-77				R9016	1-249-409-11	CARBON	220	5%	1/4W
D9016	8-719-991-33	DIODE 1SS133T-77				R9018	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
D9017	8-719-991-33	DIODE 1SS133T-77				R9019	1-216-212-00	RES-CHIP	3.9K	5%	1/8W
<b>IC</b>						R9026	1-208-789-11	METAL CHIP	2K	0.50%	1/10W
IC9001	8-759-360-83	IC TDA6111Q/N4				R9031	1-208-789-11	METAL CHIP	2K	0.50%	1/10W
IC9002	8-759-360-83	IC TDA6111Q/N4				R9033	1-215-447-00	METAL	12K	1%	1/4W
IC9003	8-759-360-83	IC TDA6111Q/N4				R9034	1-215-439-00	METAL	5.6K	1%	1/4W
<b>JACK</b>						R9035	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
 J9001	1-451-470-21	SOCKET, CRT				R9036	1-216-049-11	RES-CHIP	1K	5%	1/10W
<b>COIL</b>						R9037	1-240-233-71	METAL OXIDE	100	5%	3W
L9002	1-408-591-11	INDUCTOR	1μH			R9038	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
L9003	1-408-591-11	INDUCTOR	1μH			R9039	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
L9004	1-408-591-11	INDUCTOR	1μH			R9041	1-216-049-11	RES-CHIP	1K	5%	1/10W
L9005	1-406-666-21	INDUCTOR	150μH			R9042	1-216-049-11	RES-CHIP	1K	5%	1/10W
L9006	1-412-525-31	INDUCTOR	10μH			R9043	1-240-233-71	METAL OXIDE	100	5%	3W
<b>TRANSISTOR</b>						R9044	1-240-233-71	METAL OXIDE	100	5%	3W
Q9001	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R9047	1-202-557-00	SOLID	220	20%	1/2W
Q9002	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA				R9048	1-216-049-11	RES-CHIP	1K	5%	1/10W
Q9003	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R9049	1-216-049-11	RES-CHIP	1K	5%	1/10W
Q9004	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R9050	1-249-424-11	CARBON	3.9K	5%	1/4W
Q9005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R9051	1-202-557-00	SOLID	220	20%	1/2W
Q9008	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA				R9052	1-202-557-00	SOLID	220	20%	1/2W
Q9009	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R9053	1-249-424-11	CARBON	3.9K	5%	1/4W
Q9010	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R9054	1-249-424-11	CARBON	3.9K	5%	1/4W
Q9011	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R9055	1-260-126-81	CARBON	180K	5%	1/2W
Q9012	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA				R9056	1-202-549-00	SOLID	100	20%	1/2W
Q9014	8-729-823-81	TRANSISTOR 2SC4632LS-CB7				R9057	1-202-847-00	SOLID	560K	20%	1/2W
<b>RESISTOR</b>						R9059	1-202-818-00	SOLID	1K	20%	1/2W
R9001	1-216-226-00	RES-CHIP	15K	5%	1/8W	R9061	1-202-549-00	SOLID	100	20%	1/2W
R9004	1-249-428-11	CARBON	8.2K	5%	1/4W	R9062	1-260-123-11	CARBON	100K	5%	1/2W
R9005	1-249-421-11	CARBON	2.2K	5%	1/4W	R9063	1-260-123-11	CARBON	100K	5%	1/2W
R9006	1-249-429-11	CARBON	10K	5%	1/4W	R9064	1-260-126-81	CARBON	180K	5%	1/2W
R9007	1-208-789-11	METAL CHIP	2K	0.50%	1/10W	R9065	1-249-425-11	CARBON	4.7K	5%	1/4W
R9008	1-216-085-91	RES-CHIP	33K	5%	1/10W	R9067	1-219-769-11	CARBON	3.3M	5%	1/2W
R9009	1-249-429-11	CARBON	10K	5%	1/4W	R9068	1-216-101-00	RES-CHIP	150K	5%	1/10W
R9010	1-249-429-11	CARBON	10K	5%	1/4W	R9070	1-249-411-11	CARBON	330	5%	1/4W
R9012	1-249-417-11	CARBON	1K	5%	1/4W	R9071	1-249-411-11	CARBON	330	5%	1/4W
R9013	1-216-049-11	RES-CHIP	1K	5%	1/10W	R9072	1-249-411-11	CARBON	330	5%	1/4W
						R9073	1-216-049-11	RES-CHIP	1K	5%	1/10W
						R9076	1-219-769-11	CARBON	3.3M	5%	1/2W
						R9077	1-249-417-11	CARBON	1K	5%	1/4W
						R9078	1-249-427-11	CARBON	6.8K	5%	1/4W


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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R9079	1-249-426-11	CARBON	5.6K	5%	1/4W	C5019	1-126-968-11	ELECT	100μF	20%	50V
R9081	1-247-843-11	CARBON	3.3K	5%	1/4W	C5020	1-126-767-11	ELECT	1000μF	20%	16V
R9083	1-249-436-11	CARBON	39K	5%	1/4W	C5021	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
R9084	1-260-126-81	CARBON	180K	5%	1/2W	C5022	1-137-368-11	MYLAR	.0047μF	5%	50V
R9085	1-260-126-81	CARBON	180K	5%	1/2W	C5023	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
R9089	1-215-445-00	METAL	10K	1%	1/4W	C5024	1-102-038-00	CERAMIC	0.001μF		500V
R9091	1-215-429-00	METAL	2.2K	1%	1/4W	C5025	1-130-471-00	MYLAR	0.001μF	5%	50V
VARIABLE RESISTOR						C5026	1-107-655-11	ELECT	47μF	20%	250V
⚠	RV9001	1-241-714-11	RES, ADJ, METAL FILM	110M		C5027	1-126-963-11	ELECT	4.7μF	20%	50V
	RV9002	1-241-788-11	RES, ADJ, CARBON	100K		C5028	1-126-963-11	ELECT	4.7μF	20%	50V
D						C5030	1-136-153-00	FILM	0.01μF	5%	50V
*	A-1346-947-A D BOARD, COMPLETE (KV-32HS20/32XBR450 only)					C5031	1-163-011-11	CERAMIC CHIP	0.0015μF	10%	50V
*	A-1346-948-A D BOARD, COMPLETE (KV-36HS20/36HS20H/32XBR450C/36XBR450/36XBR450H only)					C5032	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V
	3-710-578-01	COVER, VOLUME, 6 MOLD				C5033	1-136-165-00	FILM	0.1μF	5%	50V
	4-382-854-01	SCREW (M3X8), P, SW (+)				C5034	1-162-114-00	CERAMIC	.0047μF		2KV
	4-382-854-21	SCREW (M3X14), P, SW (+)				C5035	1-126-933-11	ELECT	100μF	20%	16V
The high-voltage leads associated with the FBT on this board are not included and must be ordered separately. Order the following leads when requesting this D Board:						C5036	1-126-941-11	ELECT	470μF	20%	25V
						C5037	1-107-670-11	ELECT	10μF	20%	400V
						C5038	1-104-660-91	ELECT	47μF	20%	16V
						C5040	1-126-935-11	ELECT	470μF	20%	16V
						C5041	1-126-935-11	ELECT	470μF	20%	16V
						C5043	1-126-767-11	ELECT	1000μF	20%	16V
						C5044	1-165-319-11	CERAMIC CHIP	0.1μF		50V
						C5045	1-165-319-11	CERAMIC CHIP	0.1μF		50V
⚠	1-251-715-22	CAP ASSY, HIGH-VOLTAGE				C5046	1-163-025-11	CERAMIC CHIP	0.001μF		50V
⚠	1-900-805-19	WIRE ASSY, FOCUS HV				C5047	1-163-025-11	CERAMIC CHIP	0.001μF		50V
CAPACITOR						C5049	1-163-009-91	CERAMIC CHIP	0.001μF	10%	50V
C5001	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V	C5050	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C5002	1-106-383-00	MYLAR	0.047μF	10%	200V	C5051	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C5004	1-106-383-00	MYLAR	0.047μF	10%	200V	C5052	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C5005	1-126-235-11	ELECT	100μF	20%	6.3V	C5053	1-107-372-11	MYLAR	0.22μF	10%	200V
C5006	1-126-964-11	ELECT	10μF	20%	50V	C5056	1-162-318-11	CERAMIC	0.001μF	10%	500V
C5007	1-126-941-11	ELECT	470μF	20%	25V	C5057	1-162-134-11	CERAMIC	470pF	10%	2KV
C5008	1-126-940-11	ELECT	330μF	20%	25V	C5058	1-162-116-00	CERAMIC	680pF	10%	2KV
C5009	1-126-941-11	ELECT	470μF	20%	25V	C5059	1-162-116-00	CERAMIC	680pF	10%	2KV
C5011	1-107-641-11	ELECT	220μF	20%	160V	C5060	1-137-417-11	MYLAR	.0047μF	10%	200V
C5012	1-163-017-00	CERAMIC CHIP	.0047μF	10%	50V	C5061	1-117-839-11	FILM	9100pF	3%	1.5KV
C5013	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V	C5063	1-117-839-11	FILM	9100pF	3%	1.5KV
C5015	1-107-884-11	ELECT	1000μF	20%	16V	C5064	1-115-520-11	FILM	0.68μF	5%	250V
C5016	1-136-171-00	FILM	0.33μF	5%	50V	C5065	1-107-506-11	FILM	0.68μF	3%	400V
C5017	1-115-185-11	CERAMIC CHIP	0.033μF	10%	50V	C5066	1-109-921-11	CERAMIC	0.0015μF	10%	500V
C5018	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C5069	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
						C5070	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
						C5071	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V

NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.


NOTE: Les composants identifiés par un trame et une  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.




REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C5072	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C5611	1-163-038-91	CERAMIC CHIP	0.1μF		25V
C5073	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V	C5612	1-126-964-11	ELECT	10μF	20%	50V
C5075	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V	C5613	1-115-185-11	CERAMIC CHIP	0.033μF	10%	50V
C5076	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V	C5614	1-126-964-11	ELECT	10μF	20%	50V
C5077	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V	C5616	1-136-165-00	FILM	0.1μF	5%	50V
C5079	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C5617	1-104-660-91	ELECT	47μF	20%	16V
C5080	1-137-372-11	MYLAR	0.022μF	5%	50V	C5618	1-136-171-00	FILM	0.33μF	5%	50V
C5081	1-137-372-11	MYLAR	0.022μF	5%	50V	C5619	1-163-127-00	CERAMIC CHIP	270pF	5%	50V
C5102	1-107-888-11	ELECT	47μF	20%	25V	C5621	1-136-165-00	FILM	0.1μF	5%	50V
C5501	1-107-888-11	ELECT	47μF	20%	25V	C5623	1-126-933-11	ELECT	100μF	20%	16V
C5502	1-126-941-11	ELECT	470μF	20%	25V	C5625	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C5503	1-104-665-11	ELECT	100μF	20%	25V	C5628	1-126-933-11	ELECT	100μF	20%	16V
C5504	1-104-660-91	ELECT	47μF	20%	16V	C6503	1-131-940-11	ELECT	1200μF	20%	250V
C5505	1-126-964-11	ELECT	10μF	20%	50V	C6504	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C5506	1-126-963-11	ELECT	4.7μF	20%	50V	C6507	1-126-967-11	ELECT	47μF	20%	50V
C5507	1-163-141-00	CERAMIC CHIP	0.001μF	5%	50V	C6508	1-104-664-11	ELECT	47μF	20%	25V
C5508	1-163-031-91	CERAMIC CHIP	0.01μF		50V	C6510	1-130-495-00	MYLAR	0.1μF	5%	50V
C5509	1-163-263-11	CERAMIC CHIP	330pF	5%	50V	C6511	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
C5511	1-126-933-11	ELECT	100μF	20%	16V	C6516	1-163-009-91	CERAMIC CHIP	0.001μF	10%	50V
C5514	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	C6517	1-126-963-11	ELECT	4.7μF	20%	50V
C5518	1-129-709-61	FILM	0.0039μF	5%	630V	C6518	1-136-479-11	FILM	0.001μF	2%	50V
C5519	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V	C6519	1-126-964-11	ELECT	10μF	20%	50V
C5522	1-163-275-11	CERAMIC CHIP	0.001μF	5%	50V	C6525	1-164-143-11	CERAMIC	0.001μF	10%	1KV
C5531	1-136-165-00	FILM	0.1μF	5%	50V	C6526	1-164-143-11	CERAMIC	0.001μF	10%	1KV
C5542	1-164-182-11	CERAMIC CHIP	0.0033μF	10%	50V	C6532	1-135-998-21	FILM	56000pF	3%	800V
C5548	1-137-194-81	FILM	0.47μF	5%	50V	C6544	1-107-855-12	ELECT(BLOCK)	330μF		160V
C5550	1-129-716-00	FILM	0.015μF	5%	200V	C6545	1-126-943-11	ELECT	2200μF	20%	25V
C5576	1-104-666-11	ELECT	220μF	20%	25V	C6546	1-128-548-11	ELECT	4700μF	20%	25V
C5577	1-104-666-11	ELECT	220μF	20%	25V	C6547	1-113-610-11	ELECT(BLOCK)	220μF	20%	250V
C5587	1-104-760-11	CERAMIC CHIP	0.047μF	10%	50V	C6548	1-128-549-11	ELECT	3300μF	20%	35V
C5588	1-136-153-00	FILM	0.01μF	5%	50V	C6551	1-163-037-11	CERAMIC CHIP	0.022μF	10%	50V
C5590	1-163-263-11	CERAMIC CHIP	330pF	5%	50V	C6561	1-126-960-11	ELECT	1μF	20%	50V
C5592	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V	 C6584	1-136-344-11	MYLAR	0.047μF	20%	125V
C5594	1-136-165-00	FILM	0.1μF	5%	50V	 C6585	1-119-899-51	CERAMIC	1000pF	10%	250V
C5596	1-126-960-11	ELECT	1μF	20%	50V	C6586	1-113-924-11	CERAMIC	.0047μF	20%	125V
C5598	1-104-660-91	ELECT	47μF	20%	16V	C6587	1-113-924-11	CERAMIC	.0047μF	20%	125V
C5600	1-104-660-91	ELECT	47μF	20%	16V	C6588	1-113-924-11	CERAMIC	.0047μF	20%	125V
C5601	1-136-165-00	FILM	0.1μF	5%	50V	C6589	1-113-924-11	CERAMIC	.0047μF	20%	125V
C5602	1-104-660-91	ELECT	47μF	20%	16V	C6590	1-131-940-11	ELECT	1200μF	20%	250V
C5603	1-163-017-00	CERAMIC CHIP	.0047μF	10%	50V	 C6591	1-119-899-51	CERAMIC	1000pF	10%	250V
C5605	1-136-177-00	FILM	1μF	5%	50V	C6594	1-164-004-11	CERAMIC CHIP	0.1μF	10%	25V
C5607	1-115-185-11	CERAMIC CHIP	0.033μF	10%	50V	C6595	1-104-665-11	ELECT	100μF	20%	25V
C5609	1-104-665-11	ELECT	100μF	20%	25V	C6596	1-126-960-11	ELECT	1μF	20%	50V
C5610	1-126-935-11	ELECT	470μF	20%	16V	C8002	1-136-169-00	FILM	0.22μF	5%	50V













REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
C8004	1-104-665-11	ELECT	100μF	20%	10V						
C8005	1-104-664-11	ELECT	47μF	20%	25V	C8059	1-104-664-11	ELECT	47μF	20%	10V
C8006	1-126-960-11	ELECT	1μF	20%	50V	C8060	1-107-635-11	ELECT	4.7μF	20%	160V
C8007	1-137-150-11	MYLAR	0.01μF	5%	50V	C8063	1-136-203-11	MYLAR	0.01μF	10%	630V
C8009	1-126-964-11	ELECT	10μF	20%	50V						
								<b>CONNECTOR</b>			
C8011	1-126-961-11	ELECT	2.2μF	20%	50V	* CN5002	1-580-798-11	CONNECTOR PIN (DY)		6P	
C8012	1-126-966-11	ELECT	33μF	20%	50V	* CN5003	1-766-242-11	PIN,CONNECTOR (PC BOARD)		4P	
C8013	1-126-964-11	ELECT	10μF	20%	50V	* CN5501	1-779-889-11	CONNECTOR, BOARD TO BOARD		8P	
C8014	1-126-964-11	ELECT	10μF	20%	50V	* CN5503	1-779-890-11	CONNECTOR, BOARD TO BOARD		10P	
C8015	1-126-966-11	ELECT	33μF	20%	50V	* CN5505	1-779-890-11	CONNECTOR, BOARD TO BOARD		10P	
C8016	1-130-495-00	MYLAR	0.1μF	5%	50V						
C8017	1-126-964-11	ELECT	10μF	20%	50V	CN5506	1-573-979-21	CONNECTOR, BOARD TO BOARD		11P	
C8018	1-126-964-11	ELECT	10μF	20%	50V	* CN5509	1-564-515-11	PLUG,CONNECTOR		12P	
C8019	1-104-665-11	ELECT	100μF	20%	10V	* CN5510	1-564-506-11	PLUG,CONNECTOR		3P	
C8020	1-136-103-00	FILM	0.1μF	5%	200V	* CN6501	1-766-176-11	PIN,CONNECTOR (PC BOARD)		6P	
C8021	1-137-150-11	MYLAR	0.01μF	5%	50V	* CN6502	1-766-240-11	PIN,CONNECTOR (PC BOARD)		2P	
C8022	1-126-933-11	ELECT	100μF	20%	16V						
C8023	1-113-611-11	ELECT(BLOCK)	820μF	20%	250V	* CN6503	1-564-511-11	PLUG,CONNECTOR		8P	
C8024	1-126-967-11	ELECT	47μF	20%	50V	* CN6504	1-779-889-11	CONNECTOR, BOARD TO BOARD		8P	
C8025	1-104-664-11	ELECT	47μF	20%	25V	* CN6505	1-779-889-11	CONNECTOR, BOARD TO BOARD		8P	
C8027	1-130-495-00	MYLAR	0.1μF	5%	50V	* CN6506	1-779-889-11	CONNECTOR, BOARD TO BOARD		8P	
C8028	1-164-161-11	CERAMIC CHIP	0.0022μF	10%	50V			<b>DIODE</b>			
C8030	1-163-809-11	CERAMIC CHIP	0.047μF	10%	25V	D5001	8-719-109-85	DIODE MTZJ-T-77-5.1B			
C8031	1-128-551-11	ELECT	22μF	20%	25V	D5002	8-719-908-03	DIODE GP08DPKG23			
C8032	1-136-813-11	FILM	680pF	2%	50V	D5003	8-719-920-67	DIODE ERC91-02E			
C8033	1-126-964-11	ELECT	10μF	20%	50V	D5004	8-719-158-49	DIODE UDZ-TE-17-12B			
C8035	1-125-969-91	CERAMIC	680pF	10%	1KV	D5005	8-719-404-50	DIODE MA111-TX			
C8036	1-125-969-91	CERAMIC	680pF	10%	1KV						
C8037	1-135-946-21	FILM	47000pF	3%	800V	D5006	8-719-109-72	DIODE MTZJ-T-77-3.9B			
C8039	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	D5007	8-719-109-50	DIODE MTZJ-T-77-2.0A			
C8040	1-126-969-11	ELECT	220μF	20%	50V	D5008	8-719-404-50	DIODE MA111-TX			
C8041	1-137-194-81	FILM	0.47μF	5%	50V	D5009	8-719-404-50	DIODE MA111-TX			
C8042	1-136-103-00	FILM	0.1μF	5%	200V	D5010	8-719-404-50	DIODE MA111-TX			
C8045	1-130-471-00	MYLAR	0.001μF	5%	50V						
C8046	1-162-131-11	CERAMIC	220pF	10%	2KV	D5011	8-719-109-63	DIODE MTZJ-T-77-3.0B			
C8047	1-107-444-11	CERAMIC	100pF	10%	2KV	D5012	8-719-018-82	DIODE RGP02-20EL-6394			
C8048	1-130-495-00	MYLAR	0.1μF	5%	50V	D5013	8-719-302-43	DIODE RGP10GPKG23			
C8050	1-129-718-61	FILM	0.022μF	5%	630V	D5014	8-719-510-37	DIODE D5LC20U			
C8051	1-126-964-11	ELECT	10μF	20%	50V	D5015	8-719-302-43	DIODE RGP10GPKG23			
C8053	1-162-117-00	CERAMIC	100pF	10%	500V						
C8054	1-102-244-00	CERAMIC	220pF	10%	500V	D5016	8-719-920-67	DIODE ERC91-02E			
C8055	1-136-535-61	FILM	0.0018μF	5%	630V	D5017	8-719-920-67	DIODE ERC91-02E			
C8056	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V	D5018	8-719-110-41	DIODE MTZJ-T-77-15B			
C8058	1-137-194-81	FILM	0.47μF	5%	50V	D5019	8-719-404-50	DIODE MA111-TX			
						D5021	8-719-404-50	DIODE MA111-TX			
						D5023	8-719-061-21	DIODE PG124S15			
						D5024	8-719-510-02	DIODE D1NS4-TR			


NOTE: The components identified by shading and  mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifiés par un trame et une marque  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
















REF.NO.	PART NO.	DESCRIPTION	VALUES	REF.NO.	PART NO.	DESCRIPTION	VALUES
D5025	8-719-510-02	DIODE D1NS4-TR		D8014	8-719-302-43	DIODE RGP10GPKG23	
D5026	8-719-404-50	DIODE MA111-TX		D8016	8-719-948-45	DIODE ERA22-08TP3	
D5027	8-719-404-50	DIODE MA111-TX		D8017	8-719-948-45	DIODE ERA22-08TP3	
D5028	8-719-404-50	DIODE MA111-TX		D8018	8-719-052-90	DIODE D1NL40-TA2	
D5029	8-719-404-50	DIODE MA111-TX		 D8019	8-719-110-41	DIODE MTZJ-T-77-15B	
D5031	8-719-977-28	DIODE UDZSTE-1710B		D8020	8-719-404-50	DIODE MA111-TX	
D5032	8-719-404-50	DIODE MA111-TX		D8021	8-719-404-50	DIODE MA111-TX	
D5501	8-719-404-50	DIODE MA111-TX		D8022	8-719-404-50	DIODE MA111-TX	
D5502	8-719-404-50	DIODE MA111-TX		D8025	8-719-982-26	DIODE MTZJ-T-77-33B	
D5503	8-719-404-50	DIODE MA111-TX		D8026	8-719-404-50	DIODE MA111-TX	
D5505	8-719-800-76	DIODE MA153-TX		D8027	8-719-404-50	DIODE MA111-TX	
D5506	8-719-404-50	DIODE MA111-TX		D8028	8-719-991-33	DIODE 1SS133T-77	
D5507	8-719-800-76	DIODE MA153-TX		 D8050	8-719-923-86	DIODE MTZJ-T-77-15	
D5513	8-719-991-33	DIODE 1SS133T-77		 D8051	8-719-923-86	DIODE MTZJ-T-77-15	
D5514	8-719-063-70	DIODE D1NL20U-TA2		<b>FERRITE BEAD</b>			
D5515	8-719-063-70	DIODE D1NL20U-TA2		FB5001	1-410-397-21	FERRITE	1.1μH
D5522	8-719-923-78	DIODE MTZJ-T-77-12		FB5002	1-543-298-11	FERRITE	0μH
D5523	8-719-923-78	DIODE MTZJ-T-77-12		FB6501	1-410-397-21	FERRITE	1.1μH
D6501	8-719-404-50	DIODE MA111-TX		FB6502	1-410-396-41	FERRITE	0.45μH
D6502	8-719-979-64	DIODE μF4005PKG23		FB6504	1-410-397-21	FERRITE	1.1μH
D6507	1-216-295-91	SHORT		FB6505	1-412-911-11	FERRITE	0μH
D6508	8-719-982-27	DIODE MTZJ-T-77-33C		FB6506	1-412-911-11	FERRITE	0μH
D6509	8-719-068-00	DIODE ERC04-06SE		FB6508	1-410-396-41	FERRITE	0.45μH
D6510	8-719-068-00	DIODE ERC04-06SE		FB6509	1-410-396-41	FERRITE	0.45μH
D6513	8-719-500-71	DIODE D8LC40F		FB8001	1-410-396-41	FERRITE	0.45μH
 D6514	8-719-060-89	DIODE D4SBS6-F		<b>IC</b>			
D6515	8-719-060-90	DIODE S2L60F		IC5001	8-759-701-01	IC NJM2904M(Te2)	
D6516	8-719-060-89	DIODE D4SBS6-F		IC5002	8-759-700-07	IC NJM2903M-TE2	
D6517	8-719-060-90	DIODE S2L60F		IC5003	8-759-518-68	IC PQ12RF21	
D6522	8-719-404-50	DIODE MA111-TX		 IC5004	8-759-192-71	IC STV9379	
D6530	8-719-022-99	DIODE D6SB60L		 IC5005	8-759-803-42	IC LA6500-FA	
D6531	8-719-404-50	DIODE MA111-TX		IC5006	8-749-013-76	IC PQ6RD83B	
D6532	8-719-948-45	DIODE ERA22-08TP3		IC5007	8-759-981-61	IC NJM2901M-TE2	
D6533	8-719-404-50	DIODE MA111-TX		IC5008	8-759-675-90	IC BA51W12ST-V5	
D6537	8-719-404-50	DIODE MA111-TX		IC5501	6-700-149-01	IC M24C04-MN6T(A)	
D8002	8-719-404-50	DIODE MA111-TX		IC5502	8-759-981-61	IC NJM2901M-TE2	
D8003	8-719-404-50	DIODE MA111-TX		IC5504	8-759-803-42	IC LA6500-FA	
 D8004	8-719-109-85	DIODE MTZJ-T-77-5.1B		IC5506	8-759-803-42	IC LA6500-FA	
D8005	8-719-404-50	DIODE MA111-TX		 IC5510	8-759-803-42	IC LA6500-FA	
D8006	8-719-921-89	DIODE MTZJ-T-77-13C		IC5511	8-752-074-64	IC CXA2026AS	
D8007	8-719-404-50	DIODE MA111-TX		IC5512	8-759-929-65	IC NJM79M12FA	
D8009	8-719-404-50	DIODE MA111-TX					
D8010	8-719-052-90	DIODE D1NL40-TA2					
 D8013	8-719-063-70	DIODE D1NL20U-TA2					


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REF.NO.	PART NO.	DESCRIPTION	VALUES	REF.NO.	PART NO.	DESCRIPTION	VALUES
	IC5513	8-759-595-52	IC CXA8070AP		PH6503	8-749-924-35	PHOTO COUPLER ON3171-R
	IC5514	8-759-803-42	IC LA6500-FA		PH8001	8-749-924-35	PHOTO COUPLER ON3171-R
	IC5515	8-749-016-08	IC STK390-910				
	IC6501	8-759-670-30	IC MCZ3001D			<b>IC LINK</b>	
	IC6503	8-749-012-13	IC DM-58		PS6501	1-576-390-91	LINK, IC
	IC6505	8-749-921-86	IC SE-140N		PS6502	1-576-390-91	LINK, IC
	IC8001	8-759-981-61	IC NJM2901M-TE2				
	IC8002	8-759-670-30	IC MCZ3001D			<b>TRANSISTOR</b>	
	IC8003	8-759-198-31	IC UPC1093J-1-T		Q5001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
	IC8004	8-759-701-01	IC NJM2904M(Te2)		Q5002	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX
		<b>CHIP CONDUCTOR</b>			Q5003	8-729-015-28	TRANSISTOR IRF19630G
	JR5006	1-216-295-91	SHORT		Q5004	8-729-019-57	TRANSISTOR 2SA1208S-TP
	JR5007	1-216-295-91	SHORT		Q5005	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
	JR5010	1-216-295-91	SHORT				
	JR6501	1-216-295-91	SHORT		Q5006	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
	JR8001	1-216-295-91	SHORT		Q5007	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX
					Q5008	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX
	JR8002	1-216-295-91	SHORT		Q5011	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
	JR8003	1-216-295-91	SHORT		Q5012	8-729-119-80	TRANSISTOR 2SC2688-LK
	JR8004	1-216-295-91	SHORT				
	JR8005	1-216-295-91	SHORT		Q5013	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX
	JR8006	1-216-295-91	SHORT		Q5014	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
					Q5015	8-729-119-80	TRANSISTOR 2SC2688-LK
	JR8007	1-216-295-91	SHORT		Q5016	8-729-119-80	TRANSISTOR 2SC2688-LK
	JR8050	1-216-295-91	SHORT		Q5017	8-729-119-80	TRANSISTOR 2SC2688-LK
		<b>COIL</b>					
	L5001	1-406-665-11	INDUCTOR 100μH		Q5018	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
	L5002	1-406-663-21	INDUCTOR 47μH		Q5019	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
	L5003	1-406-892-21	INDUCTOR 4MH		Q5020	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX
	L5004	1-412-525-31	INDUCTOR 10μH		Q5021	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
	L5005	1-419-181-11	COIL, HORIZONTAL LINEARITY		Q5022	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX
	L5504	1-406-989-21	INDUCTOR 10MH		Q5023	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
	L5505	1-406-989-21	INDUCTOR 10MH		Q5026	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
	L5601	1-408-612-31	INDUCTOR 56μH		Q5027	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX
	L6503	1-412-525-31	INDUCTOR 10μH		Q5028	8-729-322-27	TRANSISTOR 2SK2182
	L6504	1-412-525-31	INDUCTOR 10μH		Q5030	8-729-052-71	TRANSISTOR 2SC3997S-SONY-RA
	L6505	1-406-665-11	INDUCTOR 100μH		Q5031	8-729-053-24	TRANSISTOR 2SK3262-01MR
	L8001	1-406-670-11	INDUCTOR 680μH		Q5033	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX
	L8002	1-419-658-11	INDUCTOR 107μH		Q5034	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
	L8005	1-406-674-11	INDUCTOR 3.3MH		Q5035	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
					Q5036	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
		<b>PHOTO COUPLER</b>					
	PH6501	8-749-924-35	PHOTO COUPLER ON3171-R		Q5037	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
	PH6502	8-749-924-35	PHOTO COUPLER ON3171-R		Q5501	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX
					Q5502	1-801-806-11	TRANSISTOR DTC144EKA-T146
					Q5503	1-801-806-11	TRANSISTOR DTC144EKA-T146
					Q5504	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX


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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
Q5505	1-801-806-11	TRANSISTOR DTC144EKA-T146				R5007	1-216-099-00	RES-CHIP	120K	5%	1/10W
Q5506	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5008	1-216-073-91	RES-CHIP	10K	5%	1/10W
Q5507	8-729-931-45	TRANSISTOR IRF614				R5009	1-216-099-00	RES-CHIP	120K	5%	1/10W
Q5508	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5011	1-216-099-00	RES-CHIP	120K	5%	1/10W
Q5509	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R5012	1-208-814-91	METAL CHIP	22K	0.50%	1/10W
Q6503	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5013	1-216-393-00	METAL OXIDE	2.2	5%	3W
 Q6506	8-729-052-32	TRANSISTOR IRFIB7N50A-LF31				R5014	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
 Q6507	8-729-052-32	TRANSISTOR IRFIB7N50A-LF31				R5016	1-208-832-11	METAL CHIP	120K	0.50%	1/10W
Q6520	8-729-019-57	TRANSISTOR 2SA1208S-TP				R5017	1-208-832-11	METAL CHIP	120K	0.50%	1/10W
Q6521	8-729-423-33	TRANSISTOR 2SC3311A-QRSTA				R5018	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
Q6522	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA				R5019	1-249-429-11	CARBON	10K	5%	1/4W
Q6524	8-729-119-76	TRANSISTOR 2SA1309A-QRSTA				R5020	1-208-800-11	METAL CHIP	5.6K	0.50%	1/10W
Q6526	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R5021	1-208-826-11	METAL CHIP	68K	0.50%	1/10W
Q6527	8-729-023-22	TRANSISTOR 2SD2114KT146				R5022	1-208-816-11	METAL CHIP	27K	0.50%	1/10W
Q6528	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5023	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
Q6529	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5024	1-216-089-91	RES-CHIP	47K	5%	1/10W
Q6530	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R5025	1-208-800-11	METAL CHIP	5.6K	0.50%	1/10W
Q6531	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5026	1-216-049-11	RES-CHIP	1K	5%	1/10W
Q6532	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5027	1-208-826-11	METAL CHIP	68K	0.50%	1/10W
Q8001	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5028	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
Q8002	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5029	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
Q8003	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5030	1-216-295-91	SHORT			
Q8004	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5031	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
Q8007	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5033	1-216-025-11	RES-CHIP	100	5%	1/10W
Q8008	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5036	1-216-085-91	RES-CHIP	33K	5%	1/10W
Q8009	8-729-200-17	TRANSISTOR 2SA1091O-TPE2				R5037	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
Q8010	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5038	1-216-075-00	RES-CHIP	12K	5%	1/10W
 Q8013	8-729-044-42	TRANSISTOR IRFI644G-LF36				R5039	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
 Q8014	8-729-044-42	TRANSISTOR IRFI644G-LF36				R5040	1-216-089-91	RES-CHIP	47K	5%	1/10W
Q8015	8-729-119-80	TRANSISTOR 2SC2688-LK				R5041	1-249-383-11	CARBON	1.5	5%	1/4W
Q8016	8-729-045-65	TRANSISTOR 2SA1776TV2Q				R5042	1-216-081-00	RES-CHIP	22K	5%	1/10W
Q8018	8-729-043-95	TRANSISTOR 2SC3840K				R5043	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
Q8019	1-801-806-11	TRANSISTOR DTC144EKA-T146				R5044	1-216-073-91	RES-CHIP	10K	5%	1/10W
Q8020	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5045	1-216-073-91	RES-CHIP	10K	5%	1/10W
Q8022	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX				R5046	1-214-798-21	METAL	1.8	1%	1/2W
Q8023	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX				R5047	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
<b>RESISTOR</b>						R5048	1-208-802-11	METAL CHIP	6.8K	0.50%	1/10W
R5001	1-216-001-00	RES-CHIP	10	5%	1/10W	R5049	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5002	1-216-033-00	RES-CHIP	220	5%	1/10W	R5050	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5003	1-216-073-91	RES-CHIP	10K	5%	1/10W	R5051	1-249-414-11	CARBON	560	5%	1/4W
R5004	1-216-099-00	RES-CHIP	120K	5%	1/10W	R5052	1-214-796-00	METAL	1.5	1%	1/2W
R5005	1-216-033-00	RES-CHIP	220	5%	1/10W	R5053	1-215-890-11	METAL OXIDE	470	5%	2W
						R5054	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
						R5055	1-216-073-91	RES-CHIP	10K	5%	1/10W


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
REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R5056	1-216-105-91	RES-CHIP	220K	5%	1/10W	R5104	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5057	1-216-073-91	RES-CHIP	10K	5%	1/10W	R5105	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5058	1-216-113-00	RES-CHIP	470K	5%	1/10W	R5106	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5059	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R5107	1-249-401-11	CARBON	47	5%	1/4W
						R5108	1-208-819-11	METAL CHIP	36K	0.50%	1/10W
R5063	1-208-813-11	METAL CHIP	20K	0.50%	1/10W						
R5064	1-218-761-11	METAL CHIP	240K	0.50%	1/10W	R5109	1-208-808-11	METAL CHIP	12K	0.50%	1/10W
R5065	1-218-761-11	METAL CHIP	240K	0.50%	1/10W	R5110	1-249-401-11	CARBON	47	5%	1/4W
R5066	1-208-792-11	METAL CHIP	2.7K	0.50%	1/10W	R5111	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5067	1-208-794-11	METAL CHIP	3.3K	0.50%	1/10W	R5112	1-216-033-00	RES-CHIP	220	5%	1/10W
						R5113	1-249-425-11	CARBON	4.7K	5%	1/4W
R5068	1-216-105-91	RES-CHIP	220K	5%	1/10W						
R5069	1-216-113-00	RES-CHIP	470K	5%	1/10W	R5114	1-249-425-11	CARBON	4.7K	5%	1/4W
R5070	1-216-113-00	RES-CHIP	470K	5%	1/10W	R5115	1-249-417-11	CARBON	1K	5%	1/4W
R5071	1-208-810-11	METAL CHIP	15K	0.50%	1/10W	R5116	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5072	1-208-810-11	METAL CHIP	15K	0.50%	1/10W	R5117	1-216-055-00	RES-CHIP	1.8K	5%	1/10W
						R5120	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5073	1-208-830-11	METAL CHIP	100K	0.50%	1/10W						
R5074	1-208-830-11	METAL CHIP	100K	0.50%	1/10W	R5121	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5075	1-208-830-11	METAL CHIP	100K	0.50%	1/10W	R5122	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5076	1-208-830-11	METAL CHIP	100K	0.50%	1/10W	R5123	1-216-295-91	SHORT			
						R5124	1-216-295-91	SHORT			
R5077	1-208-816-11	METAL CHIP	27K	0.50%	1/10W						
R5078	1-208-830-11	METAL CHIP	100K	0.50%	1/10W	R5125	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5079	1-208-810-11	METAL CHIP	15K	0.50%	1/10W	R5126	1-216-025-11	RES-CHIP	100	5%	1/10W
R5080	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R5127	1-215-890-11	METAL OXIDE	470	5%	2W
R5081	1-208-830-11	METAL CHIP	100K	0.50%	1/10W	R5128	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
						R5129	1-216-025-11	RES-CHIP	100	5%	1/10W
R5082	1-208-806-11	METAL CHIP	10K	0.50%	1/10W						
R5083	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W	R5130	1-249-401-11	CARBON	47	5%	1/4W
R5084	1-216-073-91	RES-CHIP	10K	5%	1/10W	R5131	1-208-794-11	METAL CHIP	3.3K	0.50%	1/10W
R5085	1-216-113-00	RES-CHIP	470K	5%	1/10W	R5132	1-216-481-11	METAL OXIDE	1.2K	5%	3W
R5086	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R5133	1-216-481-11	METAL OXIDE	1.2K	5%	3W
						R5134	1-216-481-11	METAL OXIDE	1.2K	5%	3W
R5087	1-216-065-91	RES-CHIP	4.7K	5%	1/10W						
R5088	1-216-049-11	RES-CHIP	1K	5%	1/10W	R5135	1-216-481-11	METAL OXIDE	1.2K	5%	3W
R5089	1-216-372-11	METAL OXIDE	1.8	5%	2W	R5136	1-216-481-11	METAL OXIDE	1.2K	5%	3W
R5090	1-216-372-11	METAL OXIDE	1.8	5%	2W	R5137	1-216-481-11	METAL OXIDE	1.2K	5%	3W
 R5091	1-249-389-11	CARBON	4.7	5%	1/4W	R5138	1-216-049-11	RES-CHIP	1K	5%	1/10W
						R5139	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5092	1-216-049-11	RES-CHIP	1K	5%	1/10W						
R5093	1-208-807-11	METAL CHIP	11K	0.50%	1/10W	R5140	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5094	1-215-869-11	METAL OXIDE	1K	5%	1W	R5141	1-215-915-11	METAL OXIDE	470	5%	3W
 R5095	1-249-443-11	CARBON	0.47	5%	1/4W	R5142	1-216-386-11	METAL OXIDE	0.56	5%	3W
 R5096	1-249-443-11	CARBON	0.47	5%	1/4W	R5143	1-216-385-11	METAL OXIDE	0.47	5%	3W
						R5144	1-216-385-11	METAL OXIDE	0.47	5%	3W
 R5097	1-249-380-11	CARBON	0.82	5%	1/4W						
 R5098	1-249-379-11	CARBON	0.68	5%	1/4W	R5145	1-215-880-00	METAL OXIDE	10	5%	2W
R5101	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W	R5146	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5102	1-208-782-11	METAL CHIP	1K	0.50%	1/10W	R5147	1-208-794-11	METAL CHIP	3.3K	0.50%	1/10W
R5103	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W	R5148	1-215-865-11	METAL OXIDE	220	5%	1W
						R5149	1-216-065-91	RES-CHIP	4.7K	5%	1/10W


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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R5150	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R5536	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R5151	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R5544	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R5152	1-216-073-91	RES-CHIP	10K	5%	1/10W	R5545	1-208-818-11	METAL CHIP	33K	0.50%	1/10W
R5153	1-216-073-91	RES-CHIP	10K	5%	1/10W	R5547	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5154	1-216-073-91	RES-CHIP	10K	5%	1/10W	R5548	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5155	1-216-081-00	RES-CHIP	22K	5%	1/10W	R5554	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R5156	1-216-089-91	RES-CHIP	47K	5%	1/10W	R5563	1-208-801-11	METAL CHIP	6.2K	0.50%	1/10W
R5157	1-216-089-91	RES-CHIP	47K	5%	1/10W	R5564	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R5158	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R5565	1-208-830-11	METAL CHIP	100K	0.50%	1/10W
R5159	1-216-025-11	RES-CHIP	100	5%	1/10W	R5573	1-216-081-00	RES-CHIP	22K	5%	1/10W
R5160	1-216-025-11	RES-CHIP	100	5%	1/10W	R5576	1-249-395-11	CARBON	15	5%	1/4W
R5161	1-216-057-00	RES-CHIP	2.2K	5%	1/10W	R5577	1-208-836-11	METAL CHIP	180K	0.50%	1/10W
R5163	1-216-063-91	RES-CHIP	3.9K	5%	1/10W	R5578	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R5164	1-260-288-11	CARBON	0.47	5%	1/2W	R5579	1-216-113-00	RES-CHIP	470K	5%	1/10W
R5501	1-216-033-00	RES-CHIP	220	5%	1/10W	R5581	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R5502	1-216-295-91	SHORT				R5585	1-208-846-11	METAL CHIP	470K	0.50%	1/10W
R5503	1-216-017-91	RES-CHIP	47	5%	1/10W	R5588	1-216-353-00	METAL OXIDE	2.2	5%	1W
R5504	1-208-840-11	METAL CHIP	270K	0.50%	1/10W	R5599	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5505	1-208-840-11	METAL CHIP	270K	0.50%	1/10W	 R5615	1-249-395-11	CARBON	15	5%	1/4W
R5506	1-216-073-91	RES-CHIP	10K	5%	1/10W	R5623	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R5507	1-216-017-91	RES-CHIP	47	5%	1/10W	R5645	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5508	1-216-025-11	RES-CHIP	100	5%	1/10W	R5647	1-208-758-11	METAL CHIP	100	0.50%	1/10W
R5509	1-216-025-11	RES-CHIP	100	5%	1/10W	R5648	1-216-385-11	METAL OXIDE	0.47	5%	3W
R5510	1-216-025-11	RES-CHIP	100	5%	1/10W	R5649	1-215-886-11	METAL OXIDE	100	5%	2W
R5511	1-216-295-91	SHORT				R5650	1-216-089-91	RES-CHIP	47K	5%	1/10W
R5512	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R5657	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R5513	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R5666	1-216-091-00	RES-CHIP	56K	5%	1/10W
R5514	1-216-295-91	SHORT				R5669	1-208-789-11	METAL CHIP	2K	0.50%	1/10W
R5516	1-208-792-11	METAL CHIP	2.7K	0.50%	1/10W	R5670	1-208-820-11	METAL CHIP	39K	0.50%	1/10W
R5518	1-208-822-11	METAL CHIP	47K	0.50%	1/10W	R5672	1-216-109-00	RES-CHIP	330K	5%	1/10W
R5519	1-208-822-11	METAL CHIP	47K	0.50%	1/10W	R5678	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W
R5520	1-208-816-11	METAL CHIP	27K	0.50%	1/10W	 R5679	1-249-395-11	CARBON	15	5%	1/4W
R5521	1-216-073-91	RES-CHIP	10K	5%	1/10W	R5680	1-249-383-11	CARBON	1.5	5%	1/4W
R5522	1-216-073-91	RES-CHIP	10K	5%	1/10W	R5684	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R5523	1-208-822-11	METAL CHIP	47K	0.50%	1/10W	R5685	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R5525	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	R5686	1-208-778-11	METAL CHIP	680	0.50%	1/10W
R5526	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R5688	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R5527	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	R5689	1-216-017-91	RES-CHIP	47	5%	1/10W
R5528	1-216-081-00	RES-CHIP	22K	5%	1/10W	R5690	1-216-017-91	RES-CHIP	47	5%	1/10W
R5529	1-216-073-91	RES-CHIP	10K	5%	1/10W	R5692	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R5530	1-216-025-11	RES-CHIP	100	5%	1/10W	R5693	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R5531	1-216-001-00	RES-CHIP	10	5%	1/10W	R5694	1-208-798-11	METAL CHIP	4.7K	0.50%	1/10W
R5532	1-216-001-00	RES-CHIP	10	5%	1/10W	R5696	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W
R5535	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	R5697	1-208-764-11	METAL CHIP	180	0.50%	1/10W


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NOTE: Les composants identifiés par un trame et une  sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.














REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R5698	1-208-801-11	METAL CHIP	6.2K	0.50%	1/10W	R6530	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R5699	1-216-081-00	RES-CHIP	22K	5%	1/10W	R6531	1-249-393-11	CARBON	10	5%	1/4W
R5700	1-208-810-11	METAL CHIP	15K	0.50%	1/10W	R6532	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5702	1-208-782-11	METAL CHIP	1K	0.50%	1/10W	R6533	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5704	1-214-657-11	METAL	1	1%	1/4W	R6534	1-216-085-91	RES-CHIP	33K	5%	1/10W
R5705	1-214-657-11	METAL	1	1%	1/4W	R6535	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5707	1-216-017-91	RES-CHIP	47	5%	1/10W	R6536	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5708	1-216-429-00	METAL OXIDE	270	5%	1W	R6537	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5709	1-216-017-91	RES-CHIP	47	5%	1/10W	R6538	1-216-073-91	RES-CHIP	10K	5%	1/10W
R5710	1-216-429-00	METAL OXIDE	270	5%	1W	R6539	1-215-900-11	METAL OXIDE	22K	5%	2W
R5711	1-260-288-11	CARBON	0.47	5%	1/2W	R6540	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5712	1-260-288-11	CARBON	0.47	5%	1/2W	R6541	1-216-077-91	RES-CHIP	15K	5%	1/10W
R5713	1-215-867-00	METAL OXIDE	470	5%	1W	R6542	1-216-049-11	RES-CHIP	1K	5%	1/10W
R5714	1-216-097-11	RES-CHIP	100K	5%	1/10W	R6543	1-208-842-11	METAL CHIP	330K	0.50%	1/10W
R5715	1-216-097-11	RES-CHIP	100K	5%	1/10W	R6544	1-216-295-91	SHORT			
R5716	1-216-049-11	RES-CHIP	1K	5%	1/10W	R6547	1-216-053-00	RES-CHIP	1.5K	5%	1/10W
R5717	1-216-093-91	RES-CHIP	68K	5%	1/10W	R6550	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6501	1-208-757-11	METAL CHIP	91	0.50%	1/10W	R6552	1-216-081-00	RES-CHIP	22K	5%	1/10W
R6502	1-260-131-11	CARBON	470K	5%	1/2W	R6553	1-216-109-00	RES-CHIP	330K	5%	1/10W
R6503	1-208-758-11	METAL CHIP	100	0.50%	1/10W	R6556	1-217-625-00	METAL	0.05	10%	2W
R6504	1-216-073-91	RES-CHIP	10K	5%	1/10W	R6557	1-216-097-11	RES-CHIP	100K	5%	1/10W
R6506	1-249-377-11	CARBON	0.47	5%	1/4W	R6583	1-216-077-91	RES-CHIP	15K	5%	1/10W
R6507	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	 R6590	1-249-415-11	CARBON	680	5%	1/4W
R6508	1-216-073-91	RES-CHIP	10K	5%	1/10W	R6591	1-216-341-11	METAL OXIDE	0.22	5%	1W
R6509	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	 R6593	1-249-405-11	CARBON	100	5%	1/4W
R6510	1-215-859-00	METAL OXIDE	22	5%	1W	R6596	1-215-445-00	METAL	10K	1%	1/4W
R6511	1-216-073-91	RES-CHIP	10K	5%	1/10W	R6597	1-215-469-00	METAL	100K	1%	1/4W
R6512	1-216-073-91	RES-CHIP	10K	5%	1/10W	R6598	1-216-342-21	METAL OXIDE	0.27	5%	1W
R6513	1-215-481-00	METAL	330K	1%	1/4W	R6599	1-249-417-11	CARBON	1K	5%	1/4W
R6514	1-215-481-00	METAL	330K	1%	1/4W	R6600	1-215-445-00	METAL	10K	1%	1/4W
R6515	1-260-131-11	CARBON	470K	5%	1/2W	R6602	1-216-049-11	RES-CHIP	1K	5%	1/10W
 R6516	1-202-962-11	CEMENTED	3.3	5%	10W	R6603	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6517	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W	R6604	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6518	1-208-810-11	METAL CHIP	15K	0.50%	1/10W	R6605	1-216-057-00	RES-CHIP	2.2K	5%	1/10W
R6519	1-216-295-91	SHORT				R6612	1-216-089-91	RES-CHIP	47K	5%	1/10W
R6521	1-260-328-11	CARBON	1K	5%	1/2W	R6614	1-260-298-51	CARBON	3.3	5%	1/2W
R6522	1-216-073-91	RES-CHIP	10K	5%	1/10W	R6646	1-215-481-00	METAL	330K	1%	1/4W
R6523	1-216-081-00	RES-CHIP	22K	5%	1/10W	R8001	1-216-073-91	RES-CHIP	10K	5%	1/10W
R6524	1-216-295-91	SHORT				R8002	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
R6525	1-216-041-00	RES-CHIP	470	5%	1/10W	R8003	1-216-081-00	RES-CHIP	22K	5%	1/10W
 R6526	1-202-933-61	FUSIBLE	0.1	10%	1/2W	R8004	1-216-081-00	RES-CHIP	22K	5%	1/10W
R6527	1-216-093-91	RES-CHIP	68K	5%	1/10W	R8005	1-216-081-00	RES-CHIP	22K	5%	1/10W
R6528	1-216-025-11	RES-CHIP	100	5%	1/10W	R8006	1-216-105-91	RES-CHIP	220K	5%	1/10W
R6529	1-249-393-11	CARBON	10	5%	1/4W	R8007	1-216-089-91	RES-CHIP	47K	5%	1/10W


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REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
R8008	1-216-081-00	RES-CHIP	22K	5%	1/10W	R8059	1-216-295-91	SHORT			
R8009	1-216-105-91	RES-CHIP	220K	5%	1/10W	R8060	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R8010	1-216-105-91	RES-CHIP	220K	5%	1/10W	R8061	1-249-393-11	CARBON	10	5%	1/4W
R8011	1-216-105-91	RES-CHIP	220K	5%	1/10W	 R8062	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8013	1-216-295-91	SHORT				 R8063	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8016	1-216-061-91	RES-CHIP	3.3K	5%	1/10W	R8065	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8017	1-216-295-91	SHORT				R8066	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8018	1-216-081-00	RES-CHIP	22K	5%	1/10W	R8068	1-216-295-91	SHORT			
R8019	1-216-089-91	RES-CHIP	47K	5%	1/10W	R8069	1-249-419-11	CARBON	1.5K	5%	1/4W
R8020	1-216-081-00	RES-CHIP	22K	5%	1/10W	R8070	1-217-611-00	METAL	0.1	10%	2W
R8021	1-216-049-11	RES-CHIP	1K	5%	1/10W	R8071	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8022	1-216-073-91	RES-CHIP	10K	5%	1/10W	R8072	1-208-782-11	METAL CHIP	1K	0.50%	1/10W
R8023	1-216-081-00	RES-CHIP	22K	5%	1/10W	R8073	1-208-790-11	METAL CHIP	2.2K	0.50%	1/10W
R8024	1-216-073-91	RES-CHIP	10K	5%	1/10W	R8074	1-208-793-11	METAL CHIP	3K	0.50%	1/10W
R8025	1-208-826-11	METAL CHIP	68K	0.50%	1/10W	R8077	1-208-838-91	METAL CHIP	220K	0.50%	1/10W
R8026	1-216-105-91	RES-CHIP	220K	5%	1/10W	R8078	1-208-838-91	METAL CHIP	220K	0.50%	1/10W
R8027	1-208-826-11	METAL CHIP	68K	0.50%	1/10W	R8080	1-249-431-11	CARBON	15K	5%	1/4W
R8028	1-208-818-11	METAL CHIP	33K	0.50%	1/10W	 R8081	1-249-377-11	CARBON	0.47	5%	1/4W
R8029	1-208-826-11	METAL CHIP	68K	0.50%	1/10W	R8082	1-216-133-91	RES-CHIP	3.3M	5%	1/10W
R8030	1-208-830-11	METAL CHIP	100K	0.50%	1/10W	R8085	1-219-749-91	CARBON	10K	5%	1/2W
R8031	1-208-830-11	METAL CHIP	100K	0.50%	1/10W	R8086	1-219-751-91	CARBON	47K	5%	1/2W
R8032	1-216-073-91	RES-CHIP	10K	5%	1/10W	R8087	1-216-295-91	SHORT			
R8033	1-208-781-11	METAL CHIP	910	0.50%	1/10W	R8089	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8034	1-216-091-00	RES-CHIP	56K	5%	1/10W	R8091	1-215-485-00	METAL	470K	1%	1/4W
 R8035	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W	R8093	1-216-101-00	RES-CHIP	150K	5%	1/10W
 R8036	1-215-444-00	METAL	9.1K	1%	1/4W	R8095	1-215-485-00	METAL	470K	1%	1/4W
 R8037	1-215-444-00	METAL	9.1K	1%	1/4W	R8096	1-216-295-91	SHORT			
 R8038	1-215-444-00	METAL	9.1K	1%	1/4W	R8098	1-249-441-11	CARBON	100K	5%	1/4W
 R8039	1-215-444-00	METAL	9.1K	1%	1/4W	R8099	1-249-441-11	CARBON	100K	5%	1/4W
 R8040	1-215-444-00	METAL	9.1K	1%	1/4W	R8100	1-249-441-11	CARBON	100K	5%	1/4W
R8041	1-208-782-11	METAL CHIP	1K	0.50%	1/10W	R8101	1-216-101-00	RES-CHIP	150K	5%	1/10W
R8042	1-208-806-11	METAL CHIP	10K	0.50%	1/10W	R8102	1-216-081-00	RES-CHIP	22K	5%	1/10W
R8043	1-216-349-00	METAL OXIDE	1	5%	1W	R8103	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
R8044	1-208-837-11	METAL CHIP	200K	0.50%	1/10W	R8104	1-216-089-91	RES-CHIP	47K	5%	1/10W
R8047	1-216-097-11	RES-CHIP	100K	5%	1/10W	R8108	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8049	1-208-758-11	METAL CHIP	100	0.50%	1/10W	R8109	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R8050	1-211-964-11	METAL CHIP	33	0.50%	1/10W	R8111	1-215-922-11	METAL OXIDE	6.8K	5%	3W
 R8051	1-220-926-11	FUSIBLE	0.47	10%	1/2W	R8112	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8053	1-208-842-11	METAL CHIP	330K	0.50%	1/10W	R8113	1-216-117-00	RES-CHIP	680K	5%	1/10W
R8054	1-208-842-11	METAL CHIP	330K	0.50%	1/10W	R8114	1-215-922-11	METAL OXIDE	6.8K	5%	3W
R8055	1-208-842-11	METAL CHIP	330K	0.50%	1/10W	R8115	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8056	1-208-804-11	METAL CHIP	8.2K	0.50%	1/10W	R8116	1-216-486-21	METAL OXIDE	8.2K	5%	3W
R8057	1-208-809-11	METAL CHIP	13K	0.50%	1/10W	R8117	1-216-097-11	RES-CHIP	100K	5%	1/10W
R8058	1-249-393-11	CARBON	10	5%	1/4W	R8118	1-216-085-91	RES-CHIP	33K	5%	1/10W

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A component identified by this  symbol indicates that it has been carefully factory-selected to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

**D** **HB** **HA**

REF.NO.	PART NO.	DESCRIPTION	VALUES		
R8119	1-216-486-21	METAL OXIDE	8.2K	5%	3W
R8123	1-216-025-11	RES-CHIP	100	5%	1/10W
R8124	1-216-073-91	RES-CHIP	10K	5%	1/10W
R8125	1-216-001-00	RES-CHIP	10	5%	1/10W
R8126	1-216-001-00	RES-CHIP	10	5%	1/10W
	R8127	1-216-295-91	SHORT		
	R8137	1-249-417-11	CARBON	1K	5% 1/4W
R8144	1-216-025-11	RES-CHIP	100	5%	1/10W
R8145	1-216-025-11	RES-CHIP	100	5%	1/10W
R8146	1-216-049-11	RES-CHIP	1K	5%	1/10W
R8147	1-208-826-11	METAL CHIP	68K	0.50%	1/10W
R8148	1-208-826-11	METAL CHIP	68K	0.50%	1/10W
R8149	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R8150	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8151	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8152	1-216-091-00	RES-CHIP	56K	5%	1/10W
R8199	1-249-389-11	CARBON	4.7	5%	1/4W
VARIABLE RESISTOR					
 	RV8001	1-225-630-91	RES, VAR, ADJ, CERMET	20K	
 	RV8002	1-225-627-91	RES, VAR, ADJ, CERMET	2K	
RELAY					
	RY6501	1-755-395-11	RELAY (AC POWER)		
	RY6502	1-755-214-11	RELAY, AC POWER		
SPARK GAP					
SG8002	1-517-499-21	GAP, SPARK			
SG8005	1-517-499-21	GAP, SPARK			
TRANSFORMER					
	T5001	1-435-621-11	TRANSFORMER, HORIZONTAL OUTPUT		
	T5002	1-435-636-11	TRANSFORMER, HORIZONTAL DRIVE		
	T6501	1-435-576-12	TRANSFORMER, CONVERTER (PIT)		
	T8001	1-453-346-11	FBT ASSY NX-6000//J1J4		
	T8002	1-433-934-11	TRANSFORMER, FERRITE (DFT)		
THERMISTOR					
TH5001	1-800-193-00	THERMISTOR			
TH5002	1-807-796-11	THERMISTOR			

HB

\*

A-1372-904-A

HB (COM) BOARD, MOUNTED

CAPACITOR

C4504

1-126-964-11

ELECT

10μF

20%

50V

C4505

1-126-964-11

ELECT

10μF

20%

50V

CONNECTOR

CN4503

1-764-334-11

PLUG,CONNECTOR

11P

DIODE

D4503

8-719-977-28

DIODE UDZSTE-1710B

D4505

8-719-977-28

DIODE UDZSTE-1710B

D4506

8-719-977-28

DIODE UDZSTE-1710B

FILTER

FL4501

1-239-583-21

FILTER, EMI

FL4502

1-239-583-21

FILTER, EMI

FL4503

1-239-583-21

FILTER, EMI

JACK

J4501

1-770-053-11

TERMINAL BLOCK, S(LIGHT ANGLE)

RESISTOR

R4506

1-216-113-00

RES-CHIP

470K

5%

1/10W

R4507

1-216-113-00

RES-CHIP

470K

5%

1/10W

R4509

1-216-049-11

RES-CHIP

1K

5%

1/10W

R4511

1-216-295-91

SHORT

R4512

1-216-295-91

SHORT

R4513

1-216-295-91

SHORT

HA

\*

A-1372-970-A

HA BOARD, MOUNTED

CAPACITOR

C05

1-126-964-11

ELECT

10μF

20%

50V

CONNECTOR

CN01

\*1-564-515-11

PLUG,CONNECTOR

12P



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES			
<b>DIODE</b>						<div>U</div> <div>*</div> <div>A-1373-817-A</div> <div>U (COM) BOARD, MOUNTED</div>						
D01	8-719-074-84	DIODE LNK0120022G1				<b>CAPACITOR</b>						
D02	8-719-074-84	DIODE LNK0120022G1				C2405	1-126-964-11	ELECT	10μF	20%	50V	
D07	8-719-109-89	DIODE RD5.6ES-T1B2				C2406	1-126-791-11	ELECT	10μF	20%	16V	
<b>IC</b>						C2407	1-126-964-11	ELECT	10μF	20%	50V	
IC01	8-742-212-20	HYB IC SBX3081-71				C2408	1-126-791-11	ELECT	10μF	20%	16V	
<b>RESISTOR</b>						C2409	1-126-964-11	ELECT	10μF	20%	50V	
R03	1-249-429-11	CARBON	10K	5%	1/4W	C2410	1-126-964-11	ELECT	10μF	20%	50V	
R05	1-247-807-31	CARBON	100	5%	1/4W	C2411	1-126-926-11	ELECT	1000μF	20%	10V	
R07	1-249-409-11	CARBON	220	5%	1/4W	C2412	1-126-964-11	ELECT	10μF	20%	50V	
R08	1-249-409-11	CARBON	220	5%	1/4W	C2413	1-126-964-11	ELECT	10μF	20%	50V	
R09	1-249-433-11	CARBON	22K	5%	1/4W	C2414	1-126-791-11	ELECT	10μF	20%	16V	
R12	1-215-445-00	METAL	10K	1%	1/4W	C2415	1-126-964-11	ELECT	10μF	20%	50V	
R14	1-215-437-00	METAL	4.7K	1%	1/4W	<b>CONNECTOR</b>						
R15	1-215-431-00	METAL	2.7K	1%	1/4W	* CN2401	1-785-303-11	CONNECTOR, DIN (PLUG)	64P			
R16	1-215-427-00	METAL	1.8K	1%	1/4W	<b>DIODE</b>						
R17	1-215-425-00	METAL	1.5K	1%	1/4W	D2401	8-719-977-28	DIODE UDZSTE-1710B				
R18	1-215-421-00	METAL	1K	1%	1/4W	D2402	8-719-977-28	DIODE UDZSTE-1710B				
R19	1-215-419-00	METAL	820	1%	1/4W	D2403	8-719-977-28	DIODE UDZSTE-1710B				
R20	1-215-415-00	METAL	560	1%	1/4W	D2405	8-719-977-28	DIODE UDZSTE-1710B				
R21	1-215-413-00	METAL	470	1%	1/4W	D2406	8-719-977-28	DIODE UDZSTE-1710B				
R22	1-215-413-00	METAL	470	1%	1/4W	D2407	8-719-977-28	DIODE UDZSTE-1710B				
R23	1-249-385-11	CARBON	2.2	5%	1/4W	D2409	8-719-977-28	DIODE UDZSTE-1710B				
<b>SWITCH</b>						D2410	8-719-800-76	DIODE MA153-TX				
S01	1-571-032-41	SWITCH PUSH (1 KEY)				D2411	8-719-977-28	DIODE UDZSTE-1710B				
S02	1-762-837-11	SWITCH TACTILE				D2412	8-719-800-76	DIODE MA153-TX				
S03	1-762-837-11	SWITCH TACTILE				D2413	8-719-800-76	DIODE MA153-TX				
S04	1-762-837-11	SWITCH TACTILE				D2414	8-719-800-76	DIODE MA153-TX				
S05	1-762-837-11	SWITCH TACTILE				D2415	8-719-800-76	DIODE MA153-TX				
S06	1-692-431-21	SWITCH TACTILE				D2416	8-719-800-76	DIODE MA153-TX				
S07	1-692-431-21	SWITCH TACTILE				D2423	8-719-800-76	DIODE MA153-TX				
S08	1-692-431-21	SWITCH TACTILE				D2424	8-719-800-76	DIODE MA153-TX				
S09	1-692-431-21	SWITCH TACTILE				D2425	8-719-800-76	DIODE MA153-TX				
S10	1-692-431-21	SWITCH TACTILE				D2426	8-719-800-76	DIODE MA153-TX				
S11	1-692-431-21	SWITCH TACTILE				D2427	8-719-800-76	DIODE MA153-TX				
						D2428	8-719-800-76	DIODE MA153-TX				
						D2429	8-719-977-28	DIODE UDZSTE-1710B				
						D2430	8-719-977-28	DIODE UDZSTE-1710B				



REF.NO.	PART NO.	DESCRIPTION	VALUES			REF.NO.	PART NO.	DESCRIPTION	VALUES		
D2431	8-719-977-28	DIODE UDZSTE-1710B				C4109	1-126-964-11	ELECT	10μF	20%	50V
D2432	8-719-977-28	DIODE UDZSTE-1710B				C4110	1-115-340-11	CERAMIC CHIP	0.22μF	10%	25V
D2433	8-719-977-28	DIODE UDZSTE-1710B				C4111	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
D2434	8-719-977-28	DIODE UDZSTE-1710B				C4112	1-163-017-00	CERAMIC CHIP	.0047μF	10%	50V
						C4113	1-115-340-11	CERAMIC CHIP	0.22μF	10%	25V
	<b>JACK</b>										
J2401	1-573-967-12	BLOCK, (S) TERMINAL				C4114	1-163-021-91	CERAMIC CHIP	0.01μF	10%	50V
J2402	1-750-517-11	JACK BLOCK, PIN 3P				C4115	1-163-017-00	CERAMIC CHIP	.0047μF	10%	50V
J2403	1-750-517-11	JACK BLOCK, PIN 3P				C4116	1-163-017-00	CERAMIC CHIP	.0047μF	10%	50V
J2405	1-764-143-11	JACK				C4117	1-126-968-11	ELECT	100μF	20%	50V
J2406	1-764-143-11	JACK					<b>CONNECTOR</b>				
J2407	1-774-358-11	JACK BLOCK, PIN				CN4101	1-573-299-21	CONNECTOR, BOARD TO BOARD 10P			
J2408	1-774-358-11	JACK BLOCK, PIN					<b>DIODE</b>				
J2409	1-750-516-11	JACK BLOCK, PIN 2P									
	<b>RESISTOR</b>					D4101	8-719-914-43	DIODE DAN202K-T-146			
						D4102	8-719-914-44	DIODE DAP202K-T-146			
							<b>IC</b>				
R2401	1-216-113-00	RES-CHIP	470K	5%	1/10W	IC4101	8-759-686-15	IC NJM2180M (TE2)			
R2402	1-216-113-00	RES-CHIP	470K	5%	1/10W	IC4102	8-759-711-10	IC NJU4066BM-T1			
R2403	1-216-113-00	RES-CHIP	470K	5%	1/10W	IC4103	8-752-058-68	IC CXA1315M-T4			
R2407	1-216-113-00	RES-CHIP	470K	5%	1/10W		<b>COIL</b>				
R2408	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R2409	1-216-113-00	RES-CHIP	470K	5%	1/10W	L4101	1-408-607-31	INDUCTOR	22μH		
R2428	1-216-113-00	RES-CHIP	470K	5%	1/10W		<b>RESISTOR</b>				
R2430	1-216-113-00	RES-CHIP	470K	5%	1/10W						
R2431	1-216-113-00	RES-CHIP	470K	5%	1/10W	R4101	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
R2432	1-216-113-00	RES-CHIP	470K	5%	1/10W	R4102	1-216-071-00	RES-CHIP	8.2K	5%	1/10W
						R4103	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R2433	1-216-113-00	RES-CHIP	470K	5%	1/10W	R4104	1-216-059-00	RES-CHIP	2.7K	5%	1/10W
R2434	1-216-021-00	RES-CHIP	68	5%	1/10W	R4105	1-216-073-91	RES-CHIP	10K	5%	1/10W
R2435	1-216-295-91	SHORT									
R2436	1-216-295-91	SHORT				R4106	1-216-097-11	RES-CHIP	100K	5%	1/10W
						R4107	1-216-097-11	RES-CHIP	100K	5%	1/10W
						R4108	1-216-069-00	RES-CHIP	6.8K	5%	1/10W
						R4109	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
						R4110	1-216-063-91	RES-CHIP	3.9K	5%	1/10W
						R4111	1-216-073-91	RES-CHIP	10K	5%	1/10W
						R4112	1-216-049-11	RES-CHIP	1K	5%	1/10W
						R4113	1-216-091-00	RES-CHIP	56K	5%	1/10W
						R4114	1-216-295-91	SHORT			
						R4115	1-216-295-91	SHORT			
						R4116	1-216-089-91	RES-CHIP	47K	5%	1/10W
						R4117	1-216-065-91	RES-CHIP	4.7K	5%	1/10W
						R4118	1-216-055-00	RES-CHIP	1.8K	5%	1/10W

\*

**A-1391-048-A S BOARD, MOUNTED****CAPACITOR**

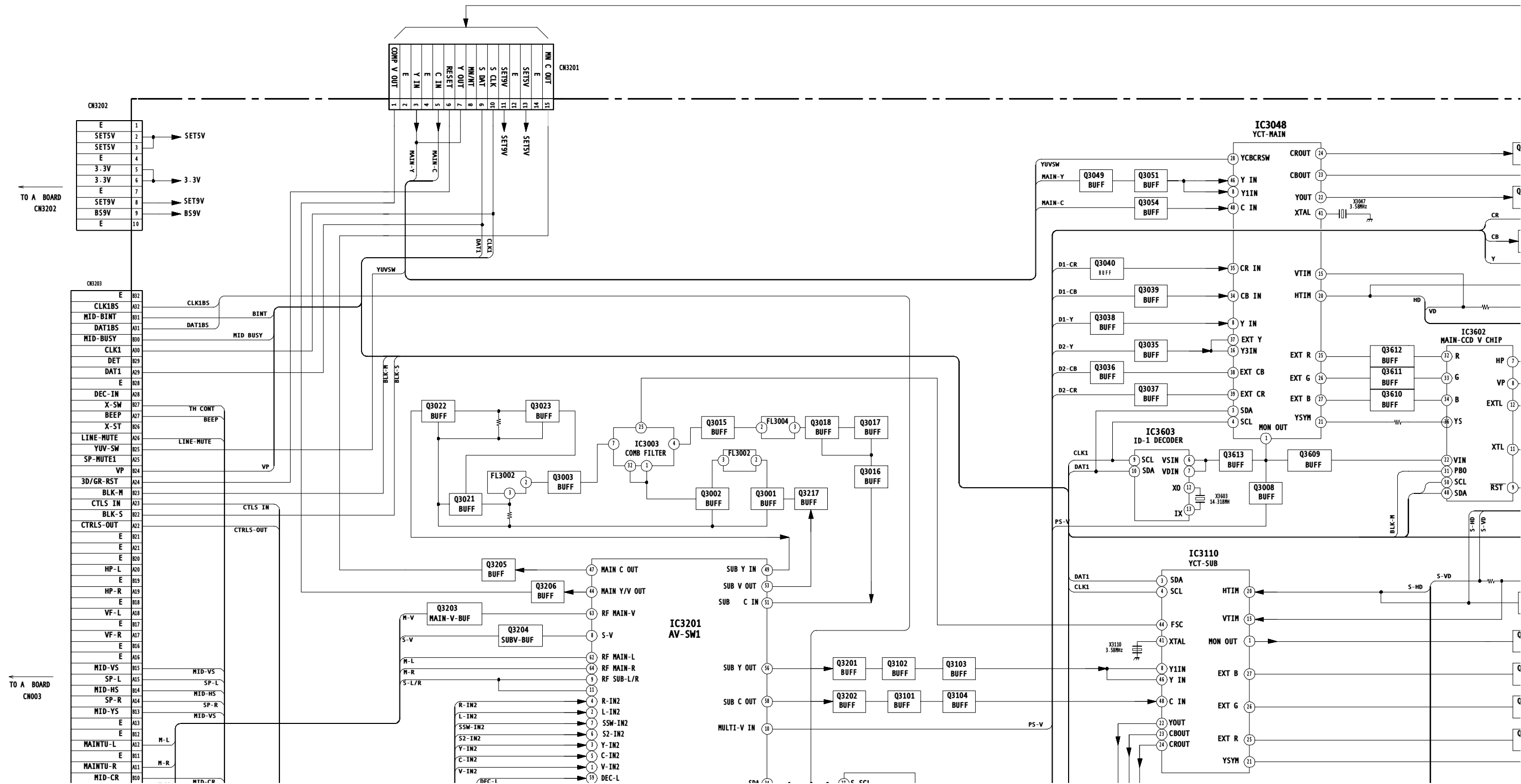
C4101	1-126-964-11	ELECT	10μF	20%	50V
C4102	1-126-964-11	ELECT	10μF	20%	50V
C4103	1-126-959-11	ELECT	0.47μF	20%	50V
C4104	1-126-959-11	ELECT	0.47μF	20%	50V
C4105	1-126-968-11	ELECT	100μF	20%	50V
C4106	1-126-968-11	ELECT	100μF	20%	50V
C4107	1-115-339-11	CERAMIC CHIP	0.1μF	10%	50V
C4108	1-126-964-11	ELECT	10μF	20%	50V

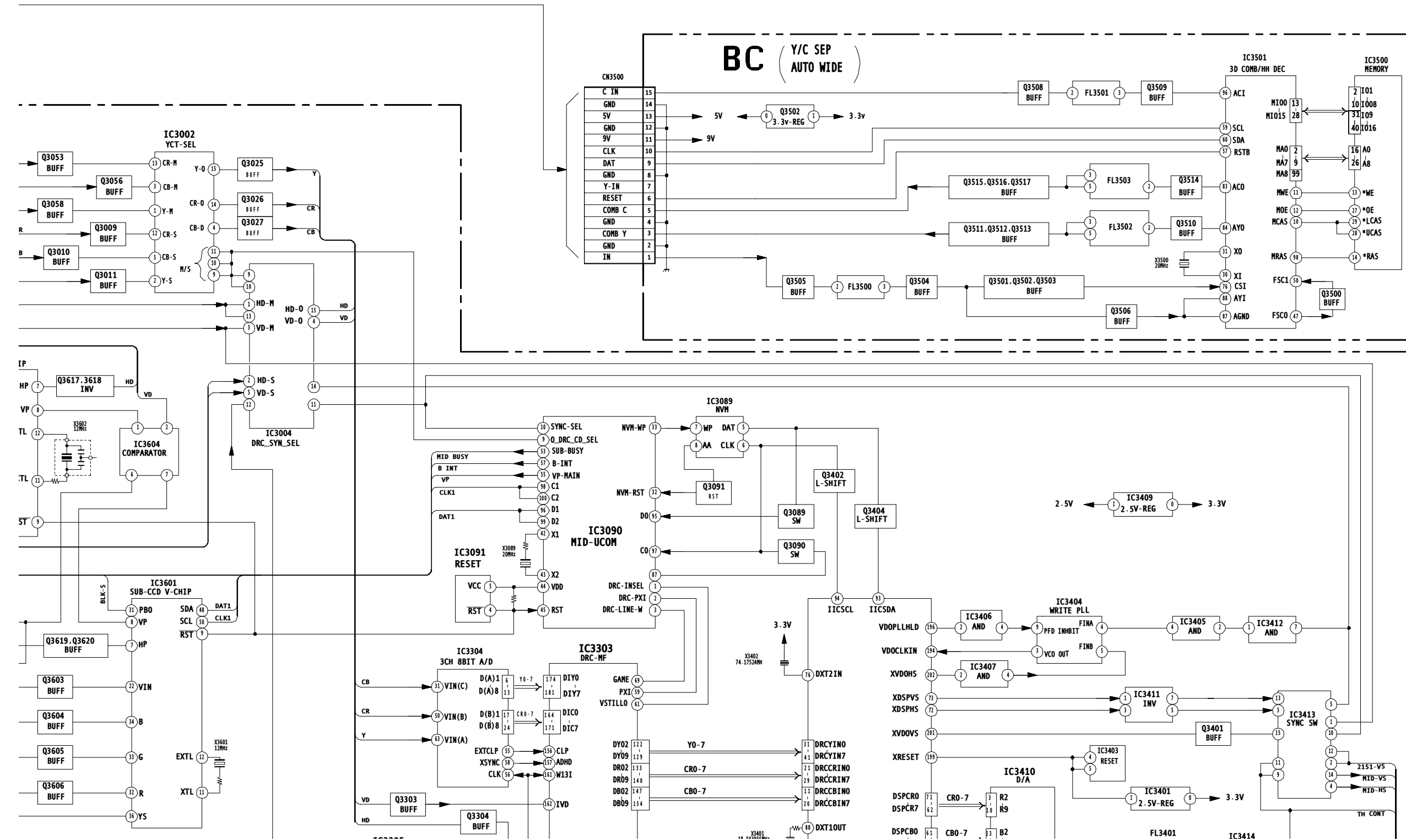


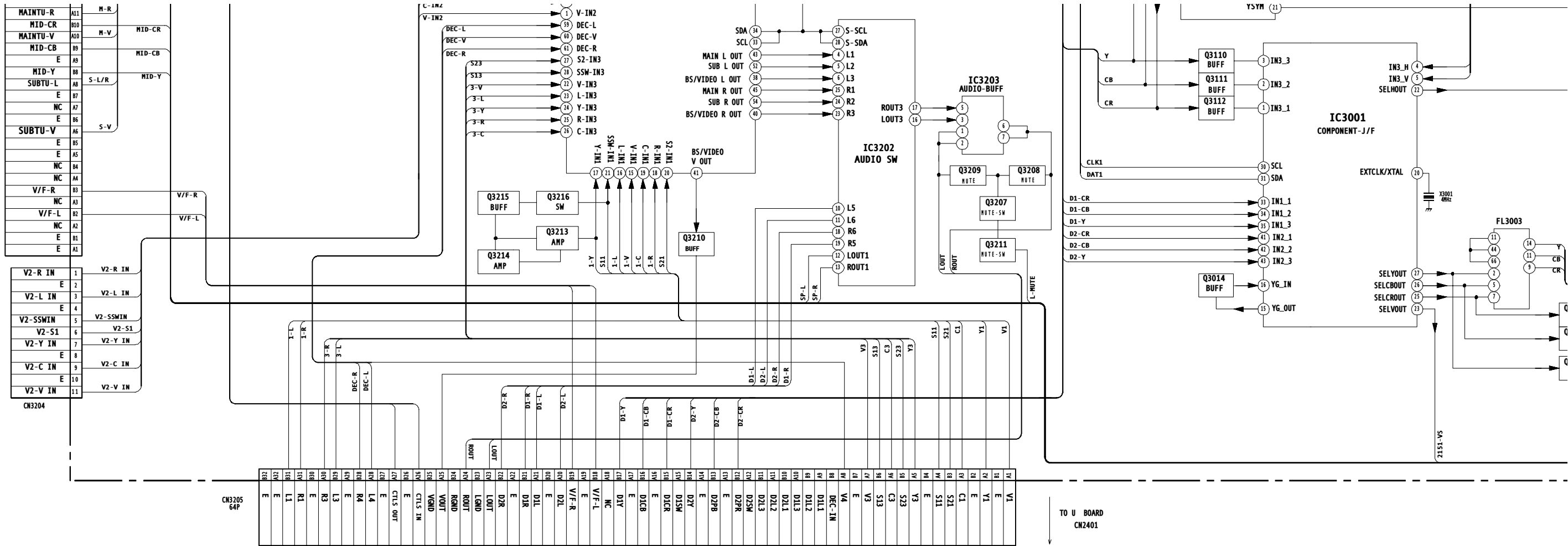
REF.NO.	PART NO.	DESCRIPTION	VALUES				REF.NO.	PART NO.	DESCRIPTION	VALUES			
R4119	1-216-065-91	RES-CHIP	4.7K	5%	1/10W	*	CN9104	1-770-747-11	CONNECTOR, BOARD TO BOARD	12P			
R4120	1-216-073-91	RES-CHIP	10K	5%	1/10W		<u>DIODE</u>						
R4121	1-216-077-91	RES-CHIP	15K	5%	1/10W		D9101	8-719-924-11	DIODE MTZJ-T-77-22				
R4123	1-216-073-91	RES-CHIP	10K	5%	1/10W		D9102	8-719-924-11	DIODE MTZJ-T-77-22				
R4124	1-216-049-11	RES-CHIP	1K	5%	1/10W		D9103	8-719-404-50	DIODE MA111-TX				
							D9104	8-719-404-50	DIODE MA111-TX				
							D9105	8-719-404-50	DIODE MA111-TX				
R4125	1-216-101-00	RES-CHIP	150K	5%	1/10W								
R4126	1-216-081-00	RES-CHIP	22K	5%	1/10W		D9106	8-719-404-50	DIODE MA111-TX				
R4127	1-216-073-91	RES-CHIP	10K	5%	1/10W		D9107	8-719-510-02	DIODE D1NS4-TR				
R4128	1-216-091-00	RES-CHIP	56K	5%	1/10W	<u>COIL</u>							
R4129	1-216-073-91	RES-CHIP	10K	5%	1/10W	L9101	1-412-525-31	INDUCTOR	10μH				
						<u>TRANSISTOR</u>							
						Q9101	8-729-045-05	TRANSISTOR 2SA2005					
						Q9102	8-729-045-04	TRANSISTOR 2SC5511					
						Q9103	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
						Q9104	8-729-422-27	TRANSISTOR 2SD601A-QRS-TX					
						Q9105	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR					
						Q9106	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX					
						Q9107	8-729-120-28	TRANSISTOR 2SC2412K-T-146-QR					
						Q9108	8-729-424-02	TRANSISTOR 2SB709A-QRS-TX					
						<u>RESISTOR</u>							
						R9102	1-249-414-11	CARBON	560	5%	1/4W		
						R9103	1-249-432-11	CARBON	18K	5%	1/4W		
						R9104	1-249-432-11	CARBON	18K	5%	1/4W		
						R9105	1-249-414-11	CARBON	560	5%	1/4W		
						R9106	1-249-421-11	CARBON	2.2K	5%	1/4W		
						R9107	1-249-421-11	CARBON	2.2K	5%	1/4W		
						R9108	1-260-316-51	CARBON	100	5%	1/2W		
						R9109	1-249-385-11	CARBON	2.2	5%	1/4W		
						R9110	1-249-385-11	CARBON	2.2	5%	1/4W		
						R9111	1-249-405-11	CARBON	100	5%	1/4W		

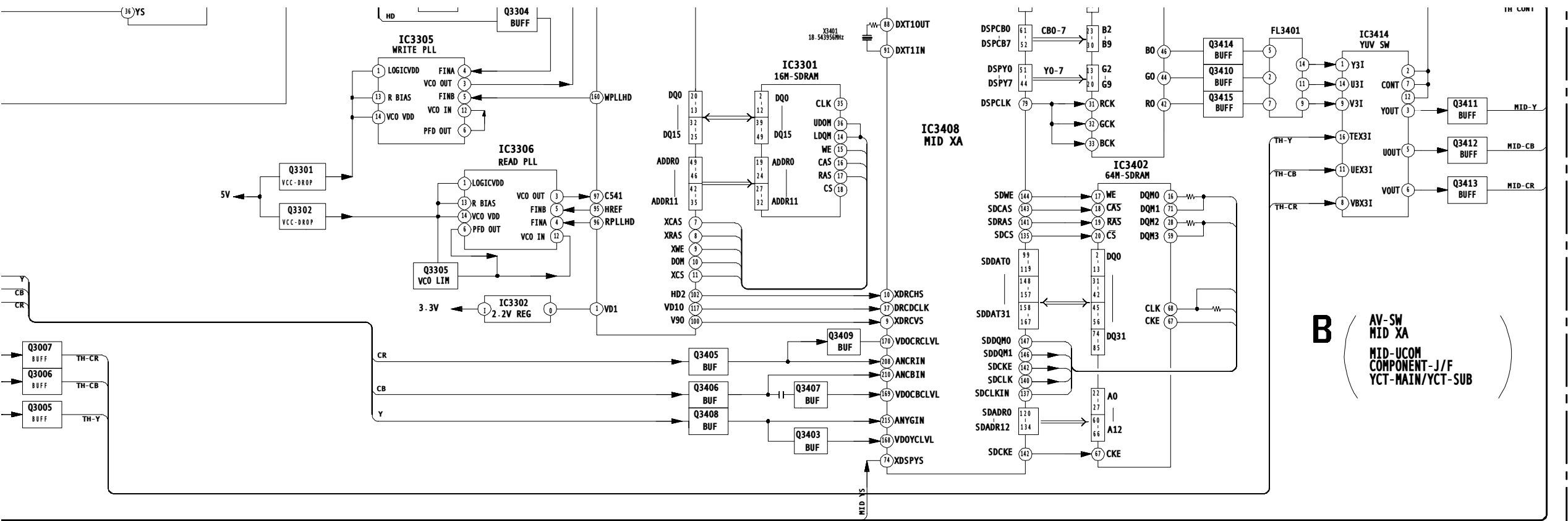
REF.NO.	PART NO.	DESCRIPTION	VALUES	REF.NO.	PART NO.	DESCRIPTION	VALUES
<b><u>ACCESSORIES AND PACKING MATERIALS</u></b>							
*	4-066-646-02	BAG, PROTECTION (ALL EXCEPT KV-32HS20/32XBR450)					
*	4-066-845-02	BAG, PROTECTION (KV-32HS20/32XBR450 ONLY)					
*	4-082-476-01	CARTON, HSC (KV-36XBR450/36XBR450H ONLY)					
*	4-082-491-01	CARTON, HSC (KV-36HS20/36HS20H ONLY)					
*	4-082-587-01	CARTON, INDIVIDUAL (KV-32HS20 ONLY)					
*	4-075-743-04	CARTON, INDIVIDUAL (KV-32XBR450 ONLY)					
*	4-082-401-01	CUSHION ASSY, FRONT (UPPER) (ALL EXCEPT KV-32HS20/32XBR450)					
*	4-081-768-01	CUSHION ASSY, LOWER (ALL EXCEPT KV-32HS20/32XBR450)					
*	4-075-733-03	CUSHION ASSY, UPPER (REAR) (KV-32HS20/32XBR450 ONLY)					
*	4-075-734-02	CUSHION ASSY, UPPER (KV-32HS20/32XBR450 ONLY)					
*	4-075-735-03	CUSHION ASSY, LOWER (KV-32HS20/32XBR450 ONLY)					
	4-082-506-21	MANUAL, INSTRUCTION (ENGLISH) (ALL EXCEPT KV-32HS20/36HS20/36HS20H)					
	4-082-506-31	MANUAL, INSTRUCTION (FRENCH) (KV-32XBR450C/36XBR450C ONLY)					
	4-082-507-21	MANUAL, INSTRUCTION (KV-32HS20/36HS20/36HS20H ONLY)					
	4-396-077-01	JOINT (ALL EXCEPT KV-32HS20/32XBR450)					
<b><u>REMOTE COMMANDER</u></b>							
	1-476-683-11	REMOTE COMMANDER (RM-Y184) (ALL EXCEPT KV-32HS20/36HS20/36HS20H)					
	4-081-888-11	BATTERY COVER FOR RM-Y184 (ALL EXCEPT KV-32HS20/36HS20/36HS20H)					
	1-476-682-11	REMOTE COMMANDER (RM-Y183) (KV-32HS20/36HS20/36HS20H ONLY)					
	4-978-977-21	BATTERY COVER FOR RM-Y183 (KV-32HS20/36HS20/36HS20H ONLY)					

BLOCK DIAGRAM (3 OF 4)

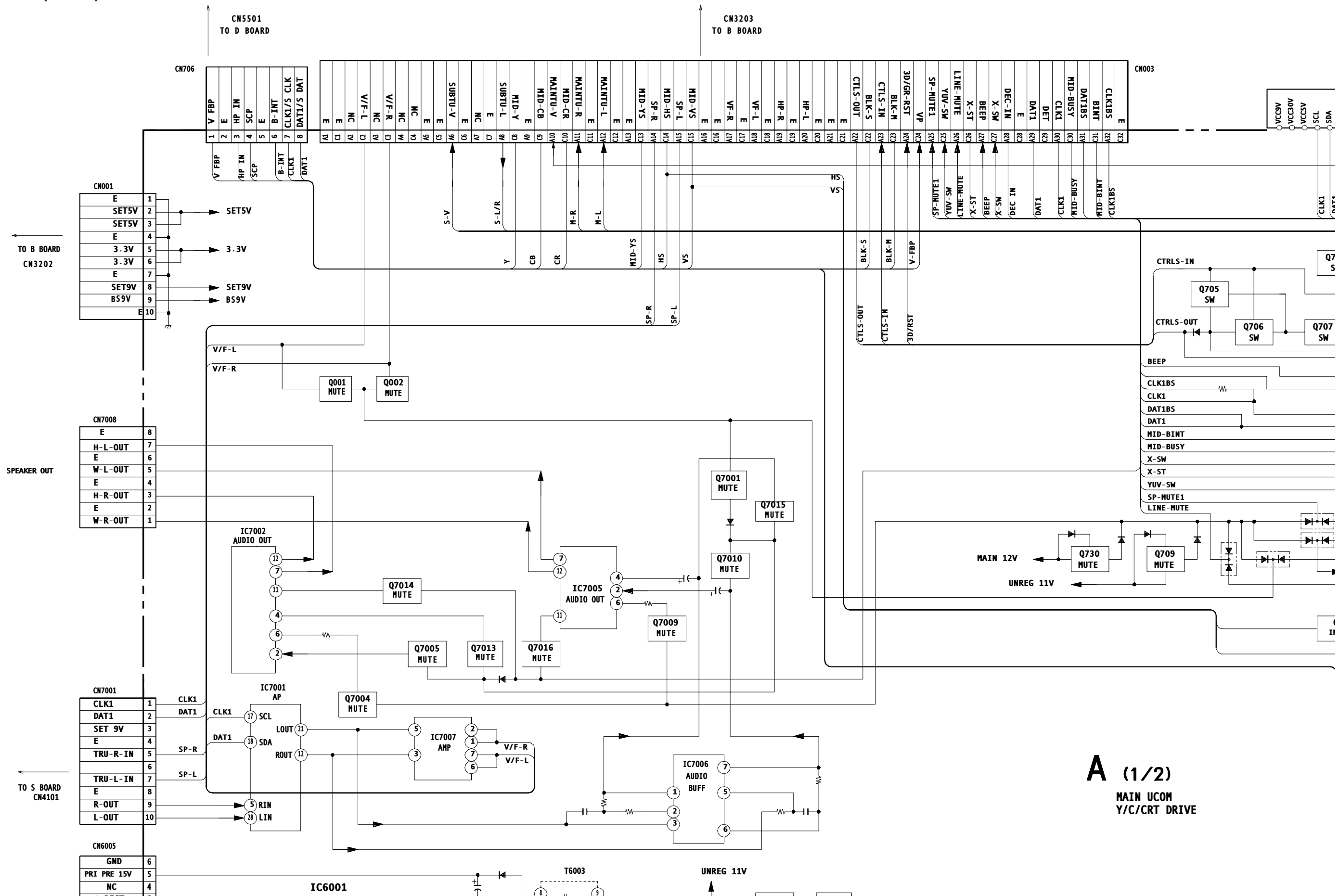


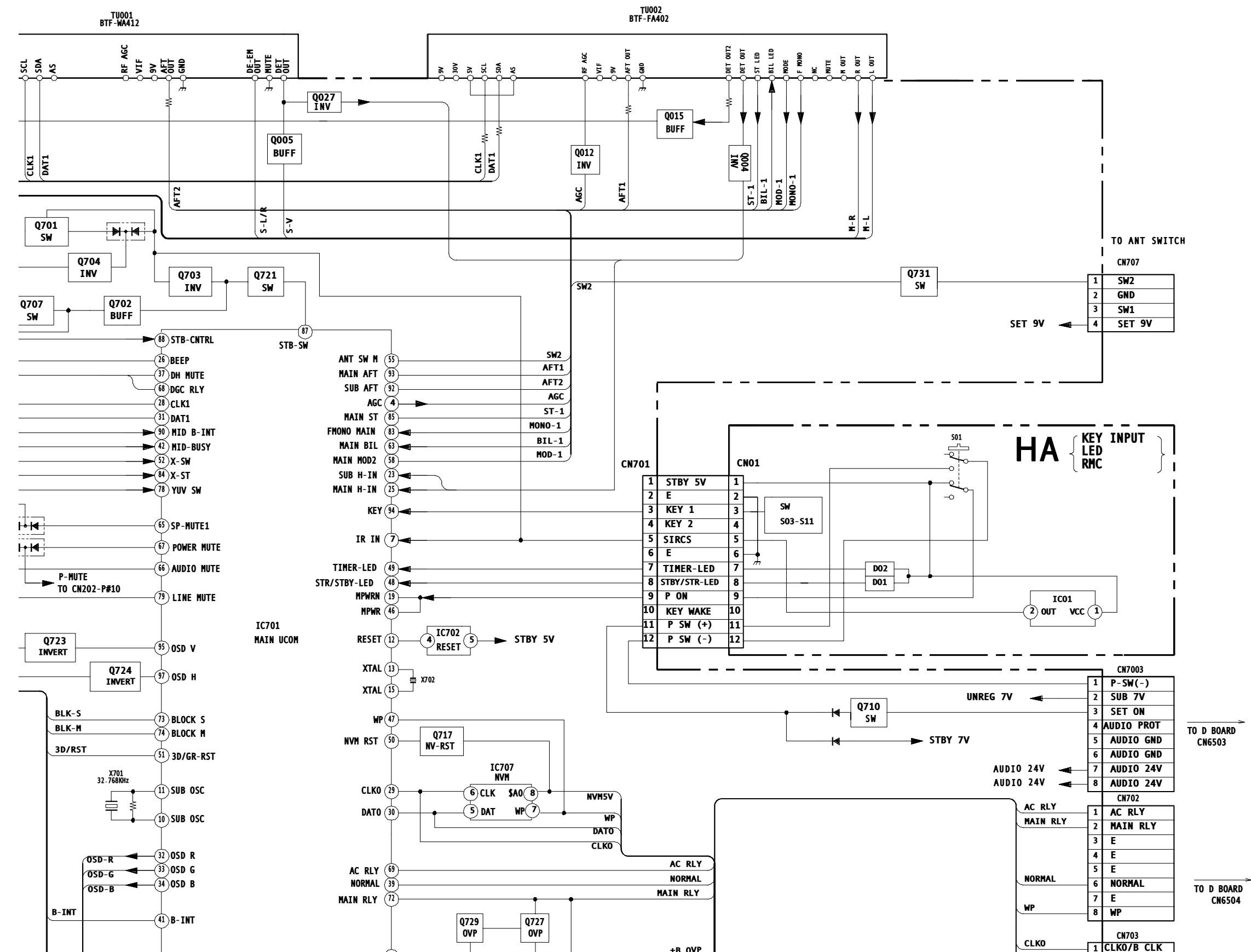


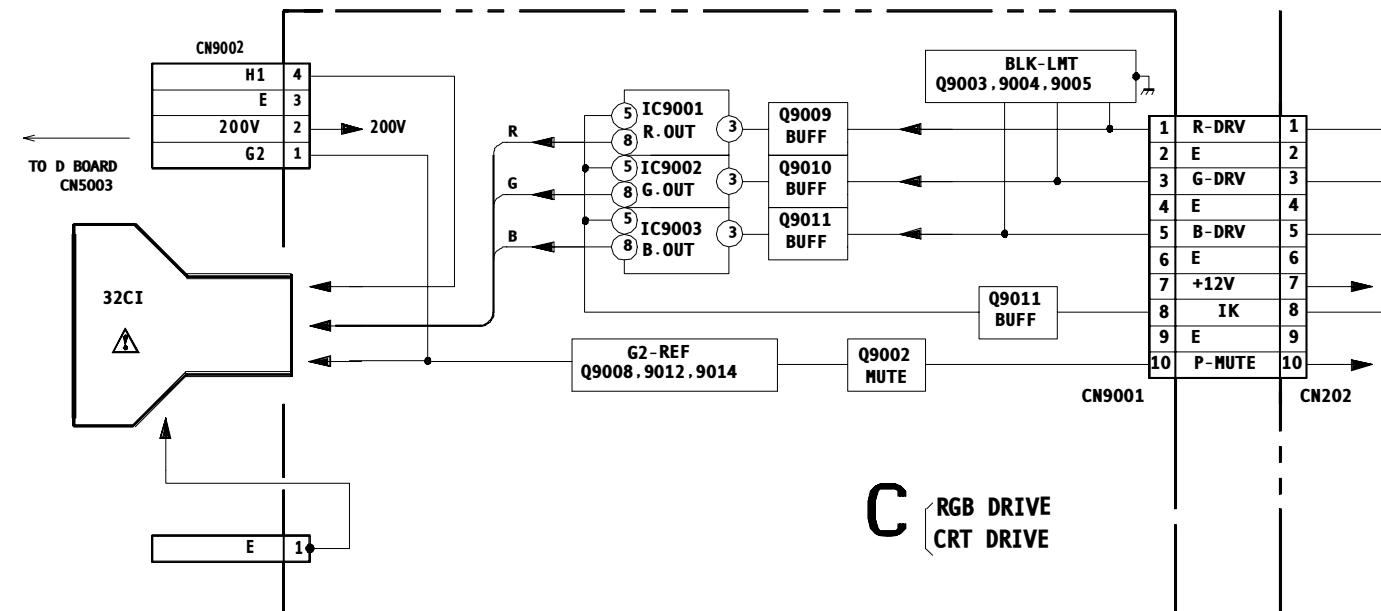
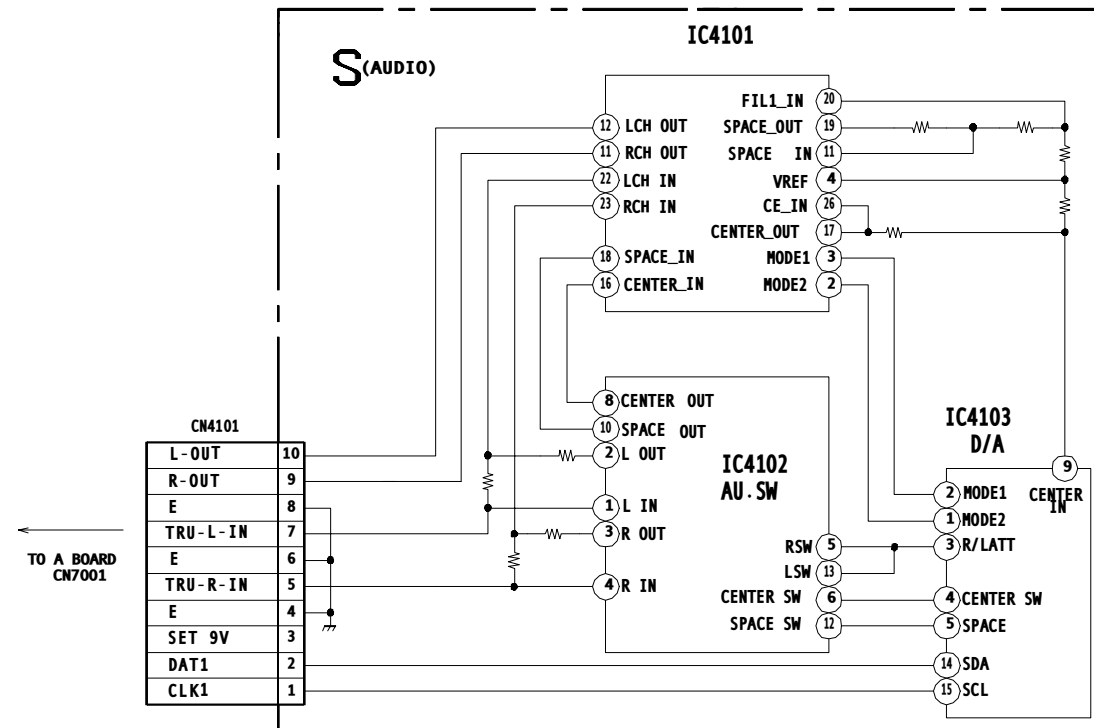
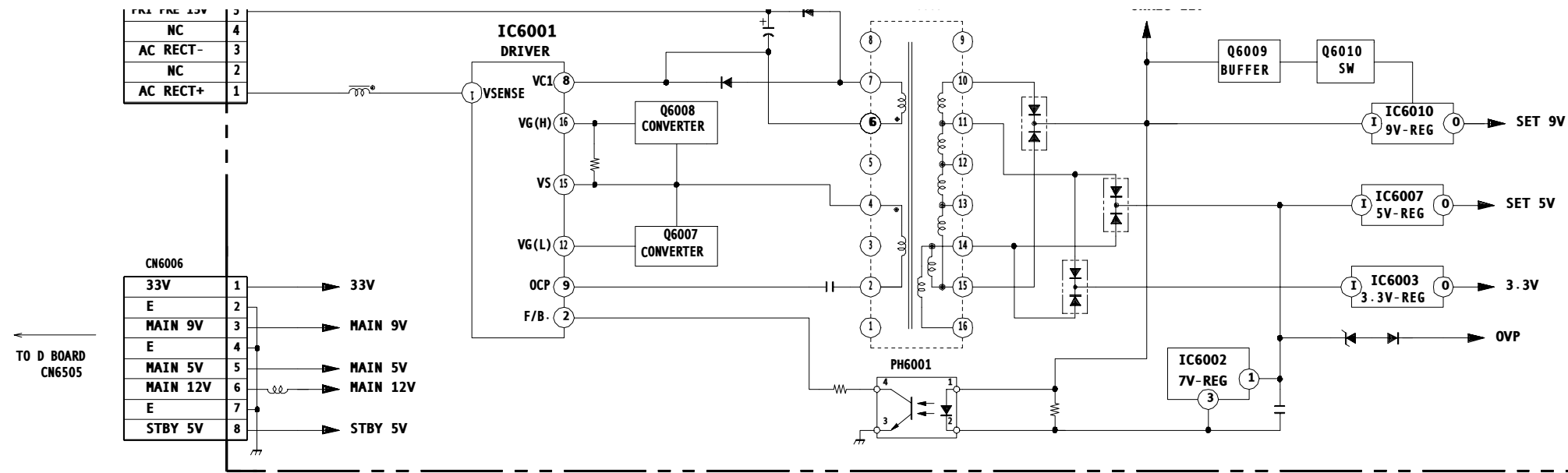


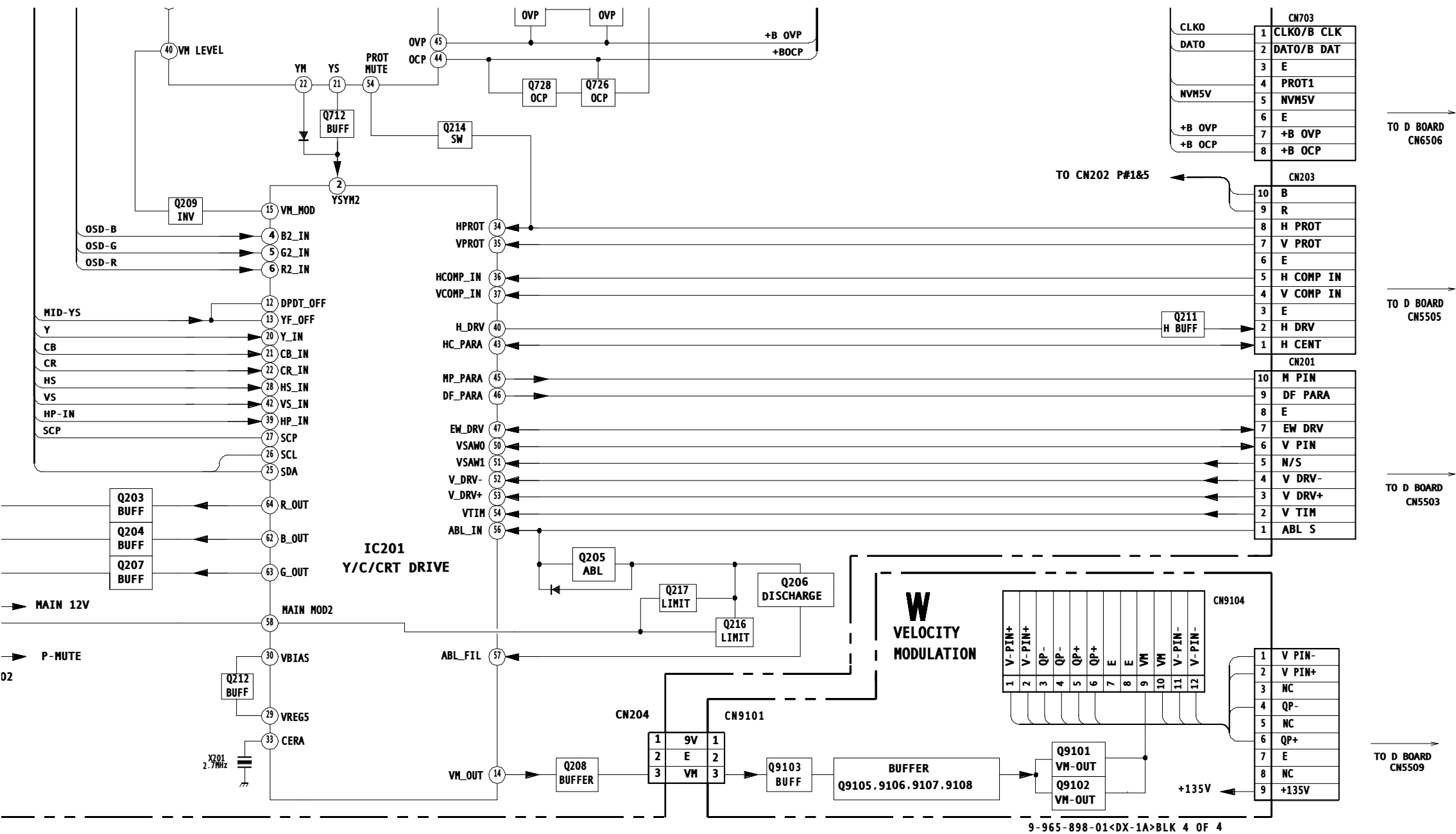


**BLOCK DIAGRAM (4 OF 4)**









CN703	
CLKO	1 CLK0/B CLK
DATO	2 DATO/B DAT
	3 E
NVH5V	4 PROT1
	5 NVH5V
	6 E
+B OVP	7 +B OVP
+B OCP	8 +B OCP

TO D BOARD  
CN6506

TO CN202 P#1&5

CN203	
	10 B
	9 R
	8 H PROT
	7 V PROT
	6 E
	5 H COMP IN
	4 V COMP IN
	3 E
	2 H DRV
	1 H CENT

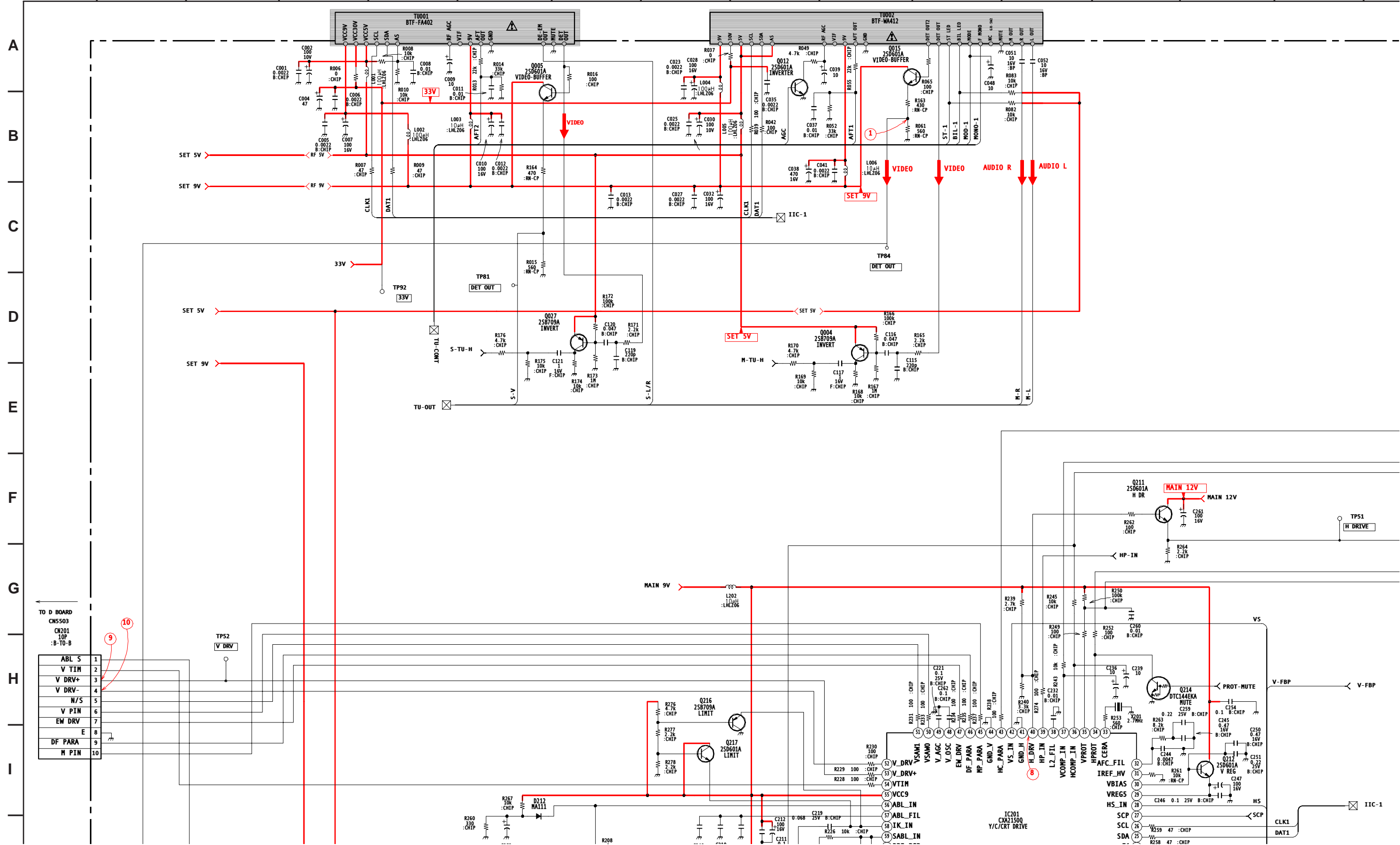
TO D BOARD  
CN5505

CN201	
	10 M PIN
	9 DF PARA
	8 E
	7 EW DRV
	6 V PIN
	5 N/S
	4 V DRV-
	3 V DRV+
	2 V TIM
	1 ABL S

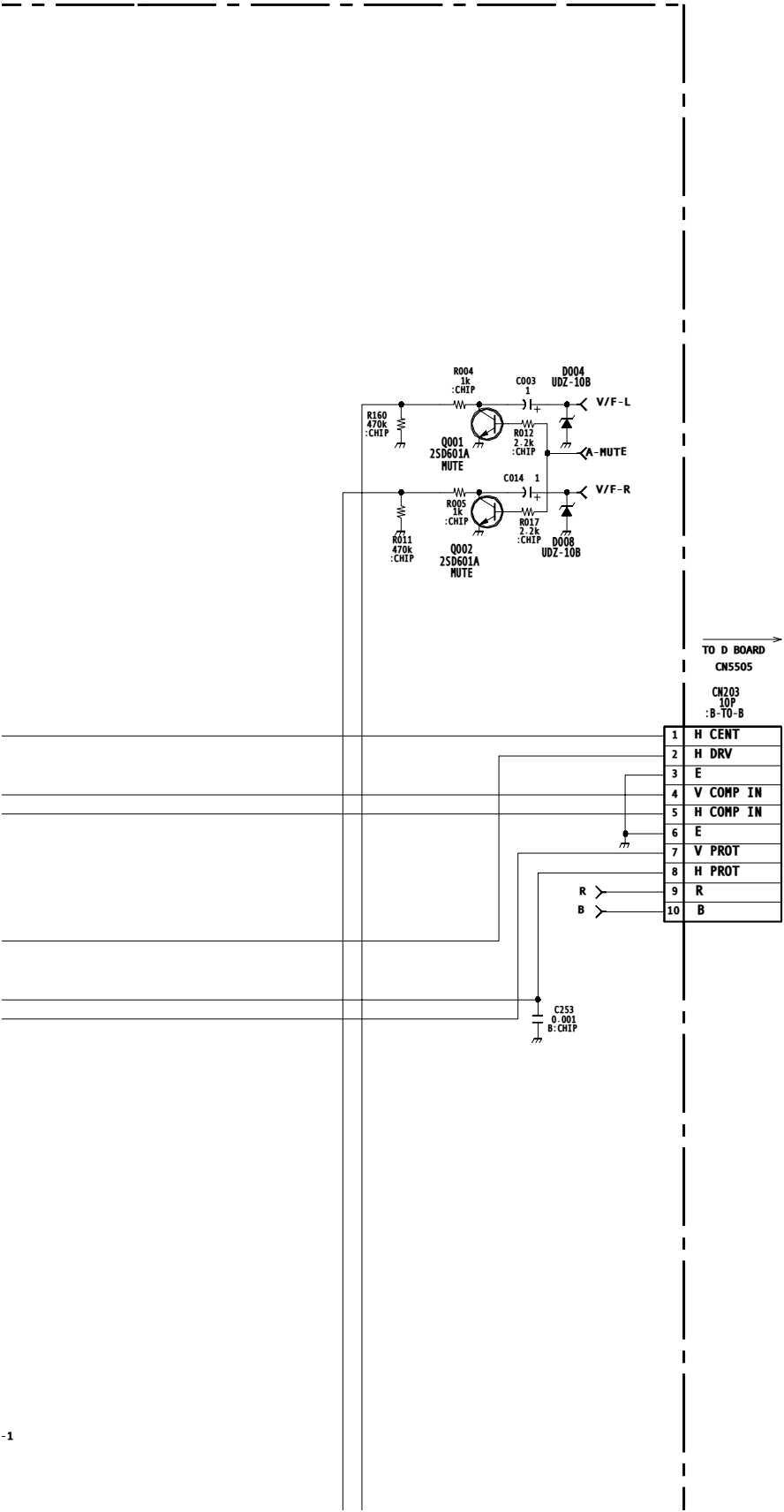
TO D BOARD  
CN5503

TO D BOARD  
CN5509

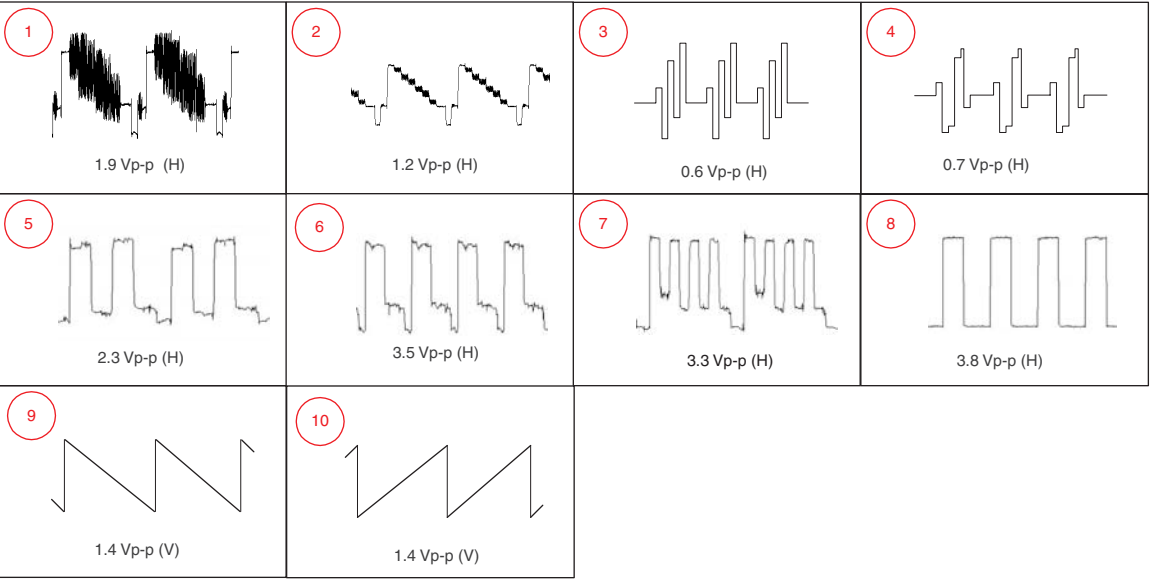
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----



16 | 17 | 18 | 19 | 20 |



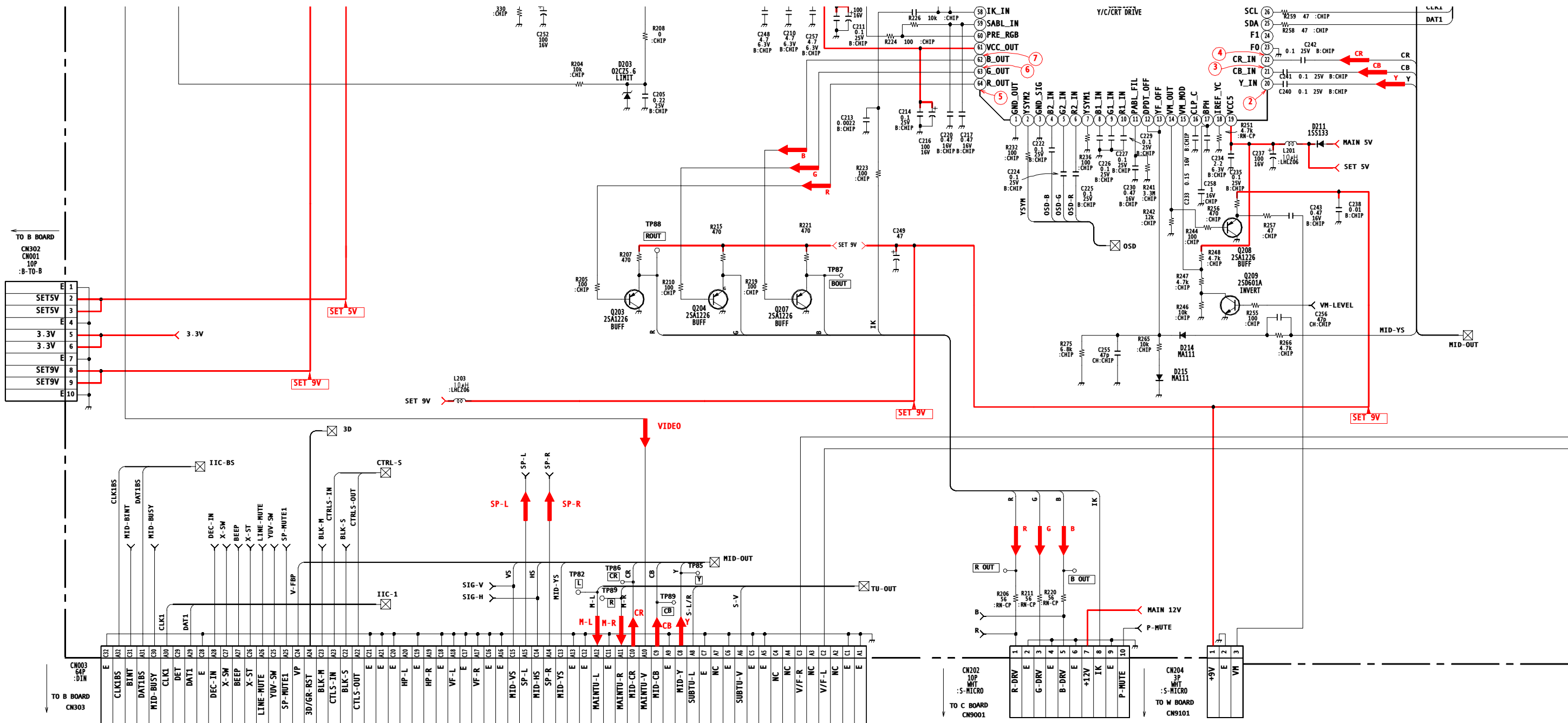
A BOARD WAVEFORMS



A BOARD: IC CXA2150Q

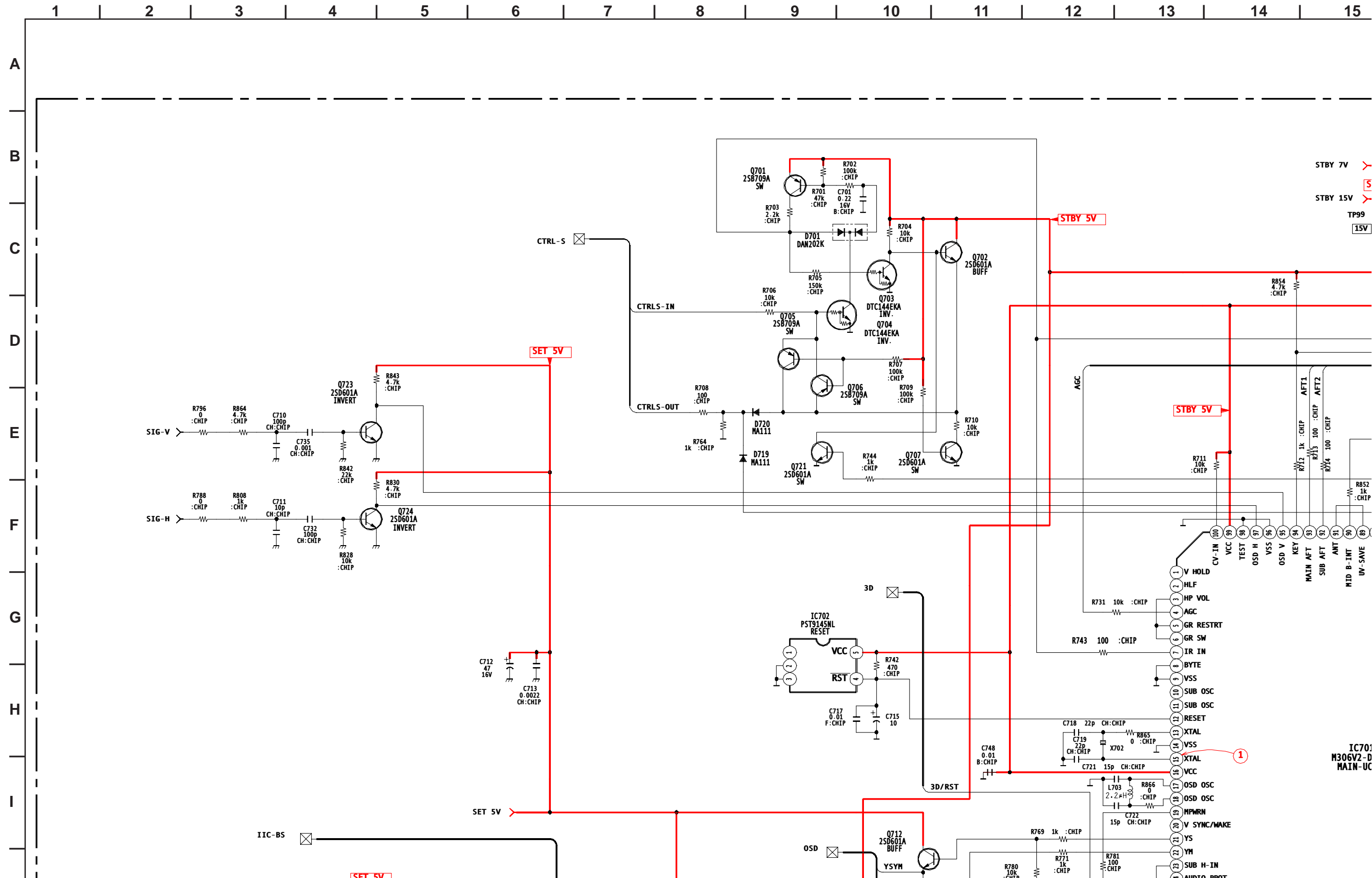
MOD DUT JFF C T\_OFF 7 2 7 5 7 2 7 42

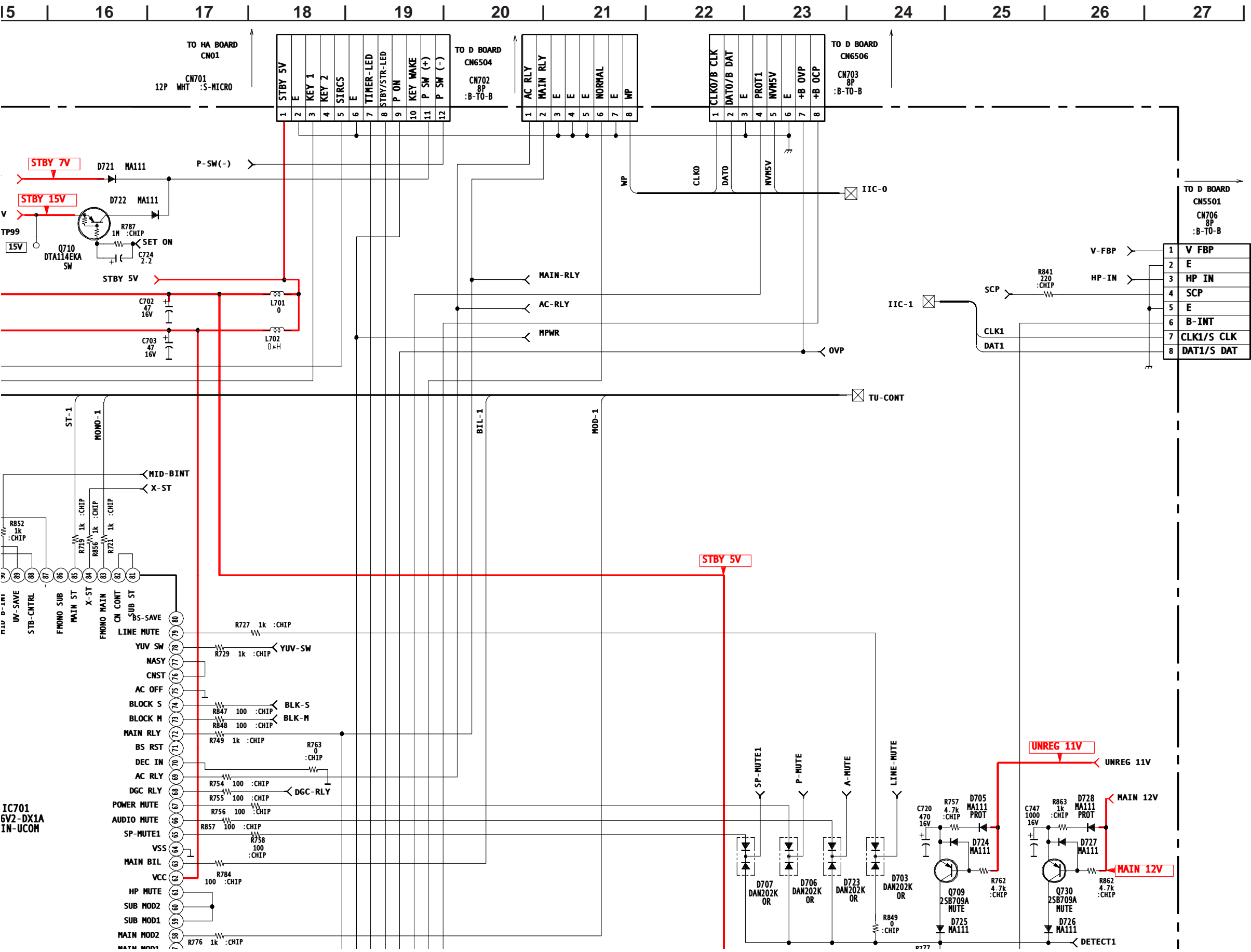
J  
K  
L  
M  
N  
O  
P



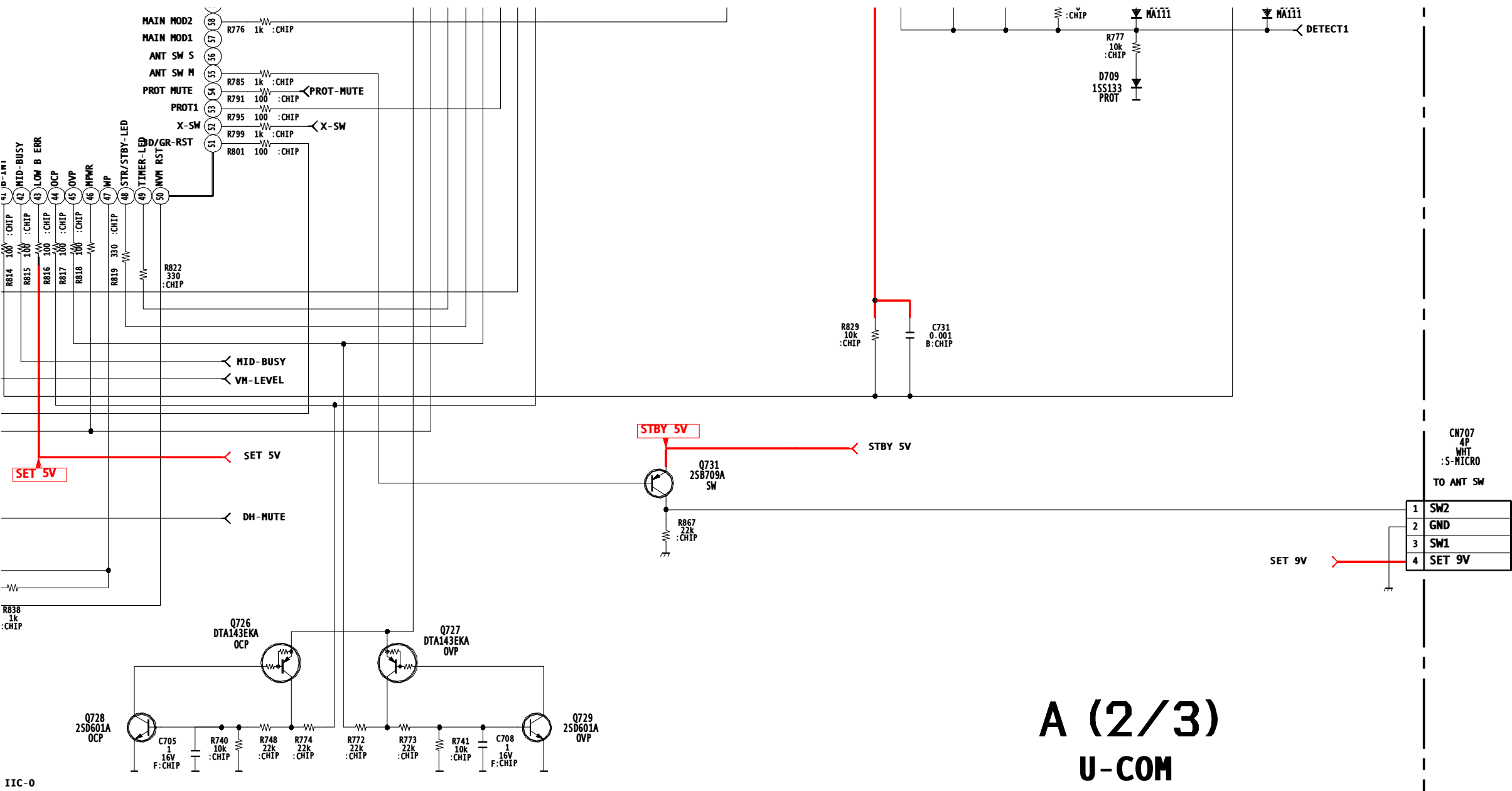
1

A BOARD SCHEMATIC DIAGRAM (2 OF 3)

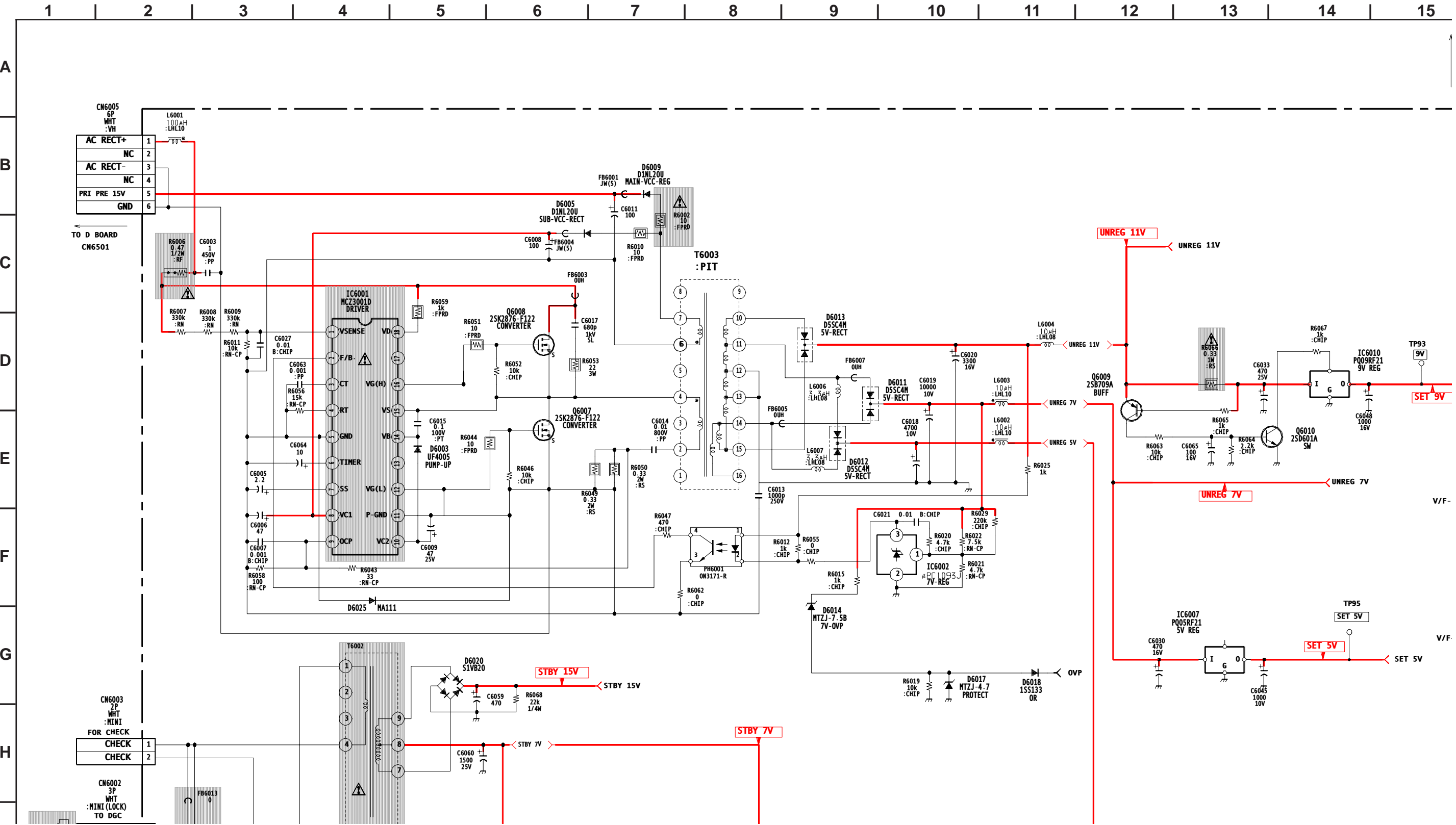


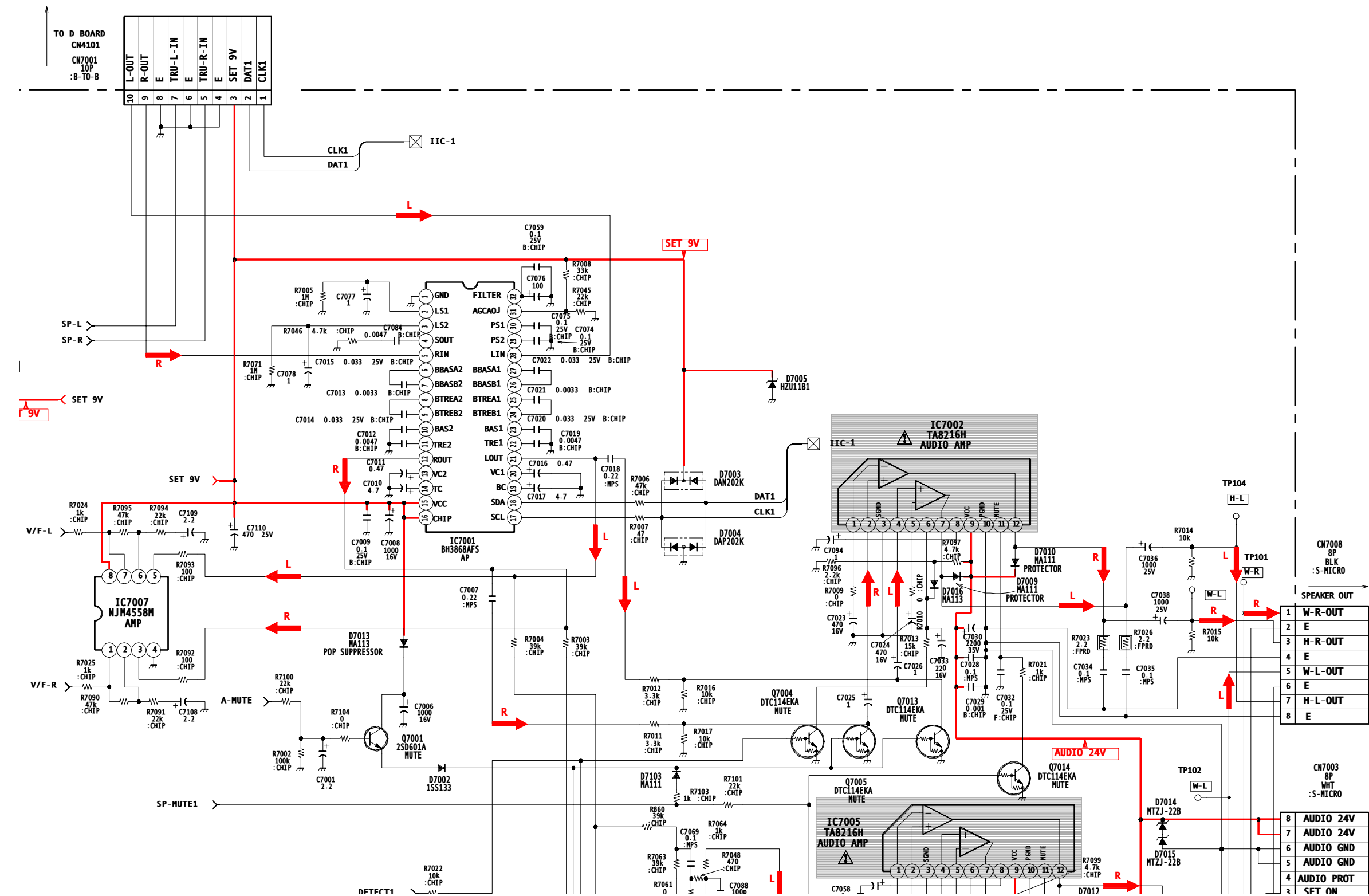


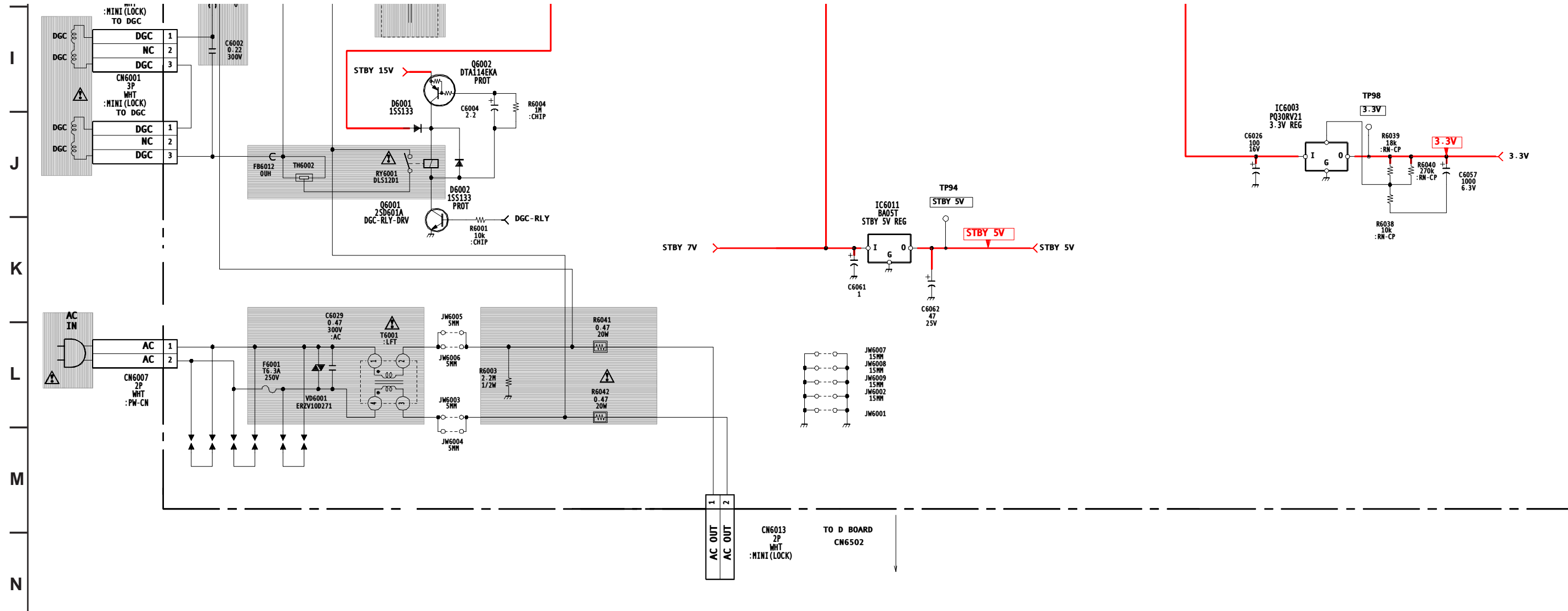


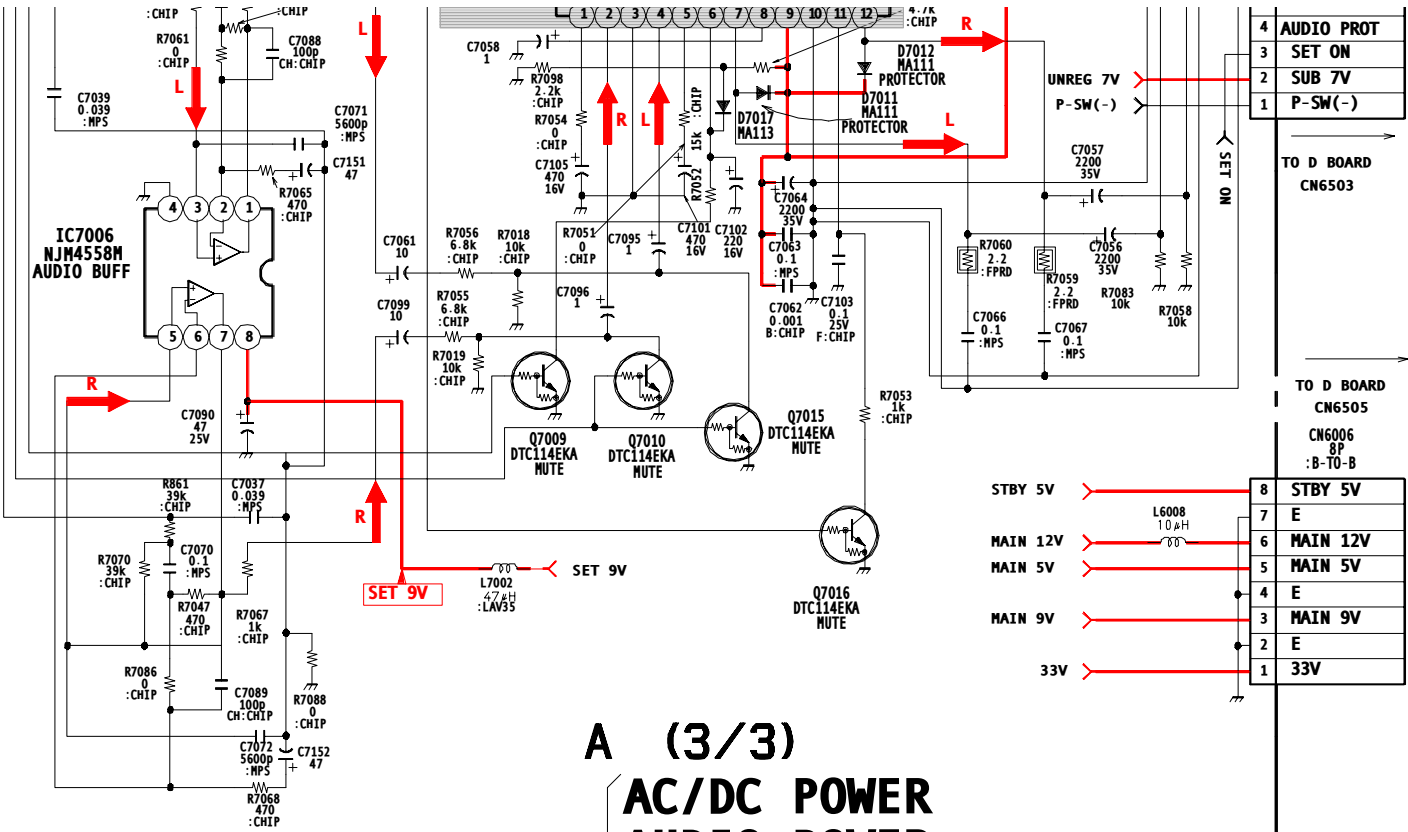
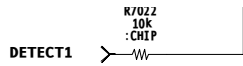


A BOARD SCHEMATIC DIAGRAM (3 OF 3)









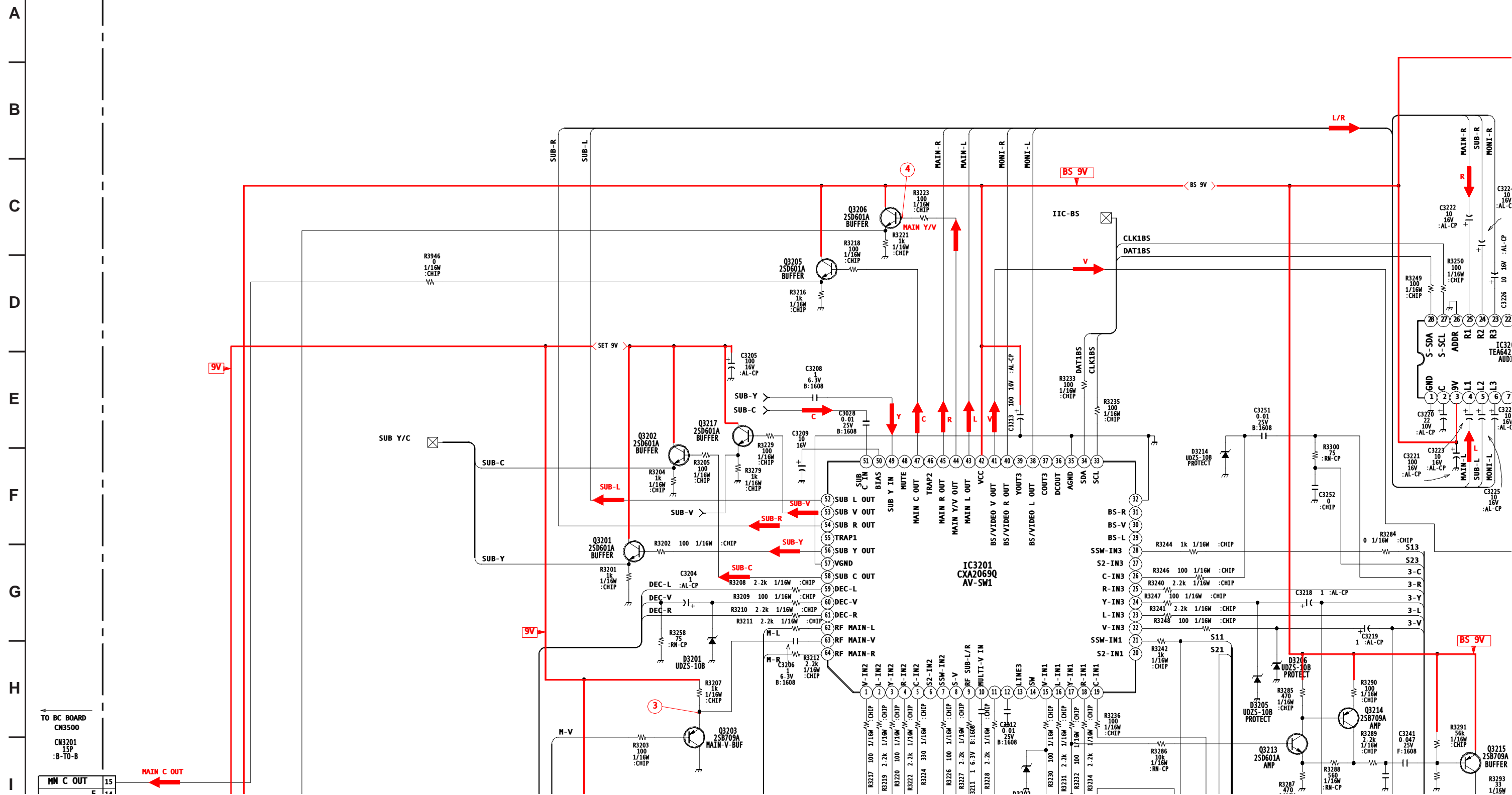
**A (3/3)**  
**AC/DC POWER**  
**AUDIO POWER**

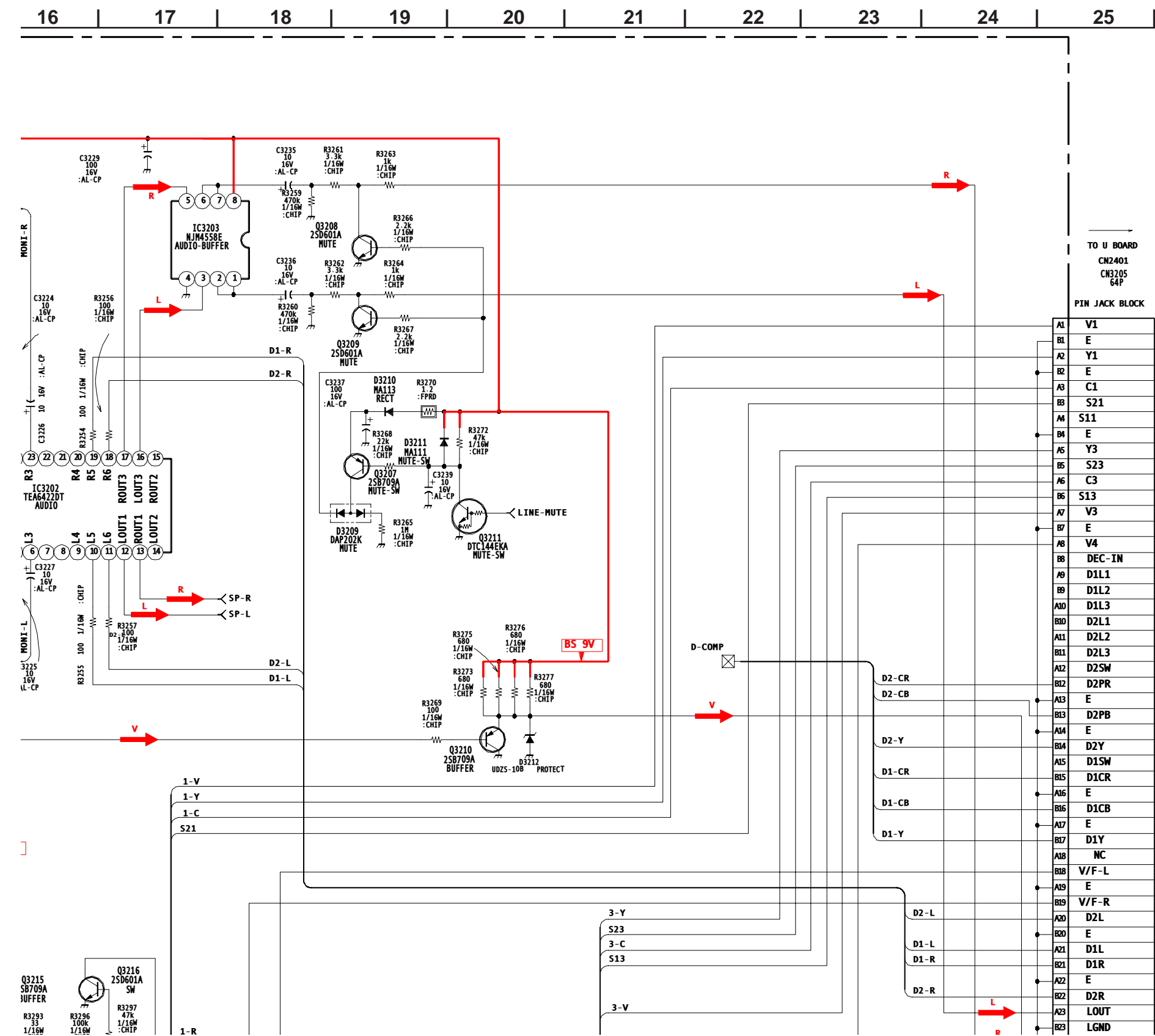
8	STBY 5V
7	E
6	MAIN 12V
5	MAIN 5V
4	E
3	MAIN 9V
2	E
1	33V

4	AUDIO PROT
3	SET ON
2	SUB 7V
1	P-SW(-)

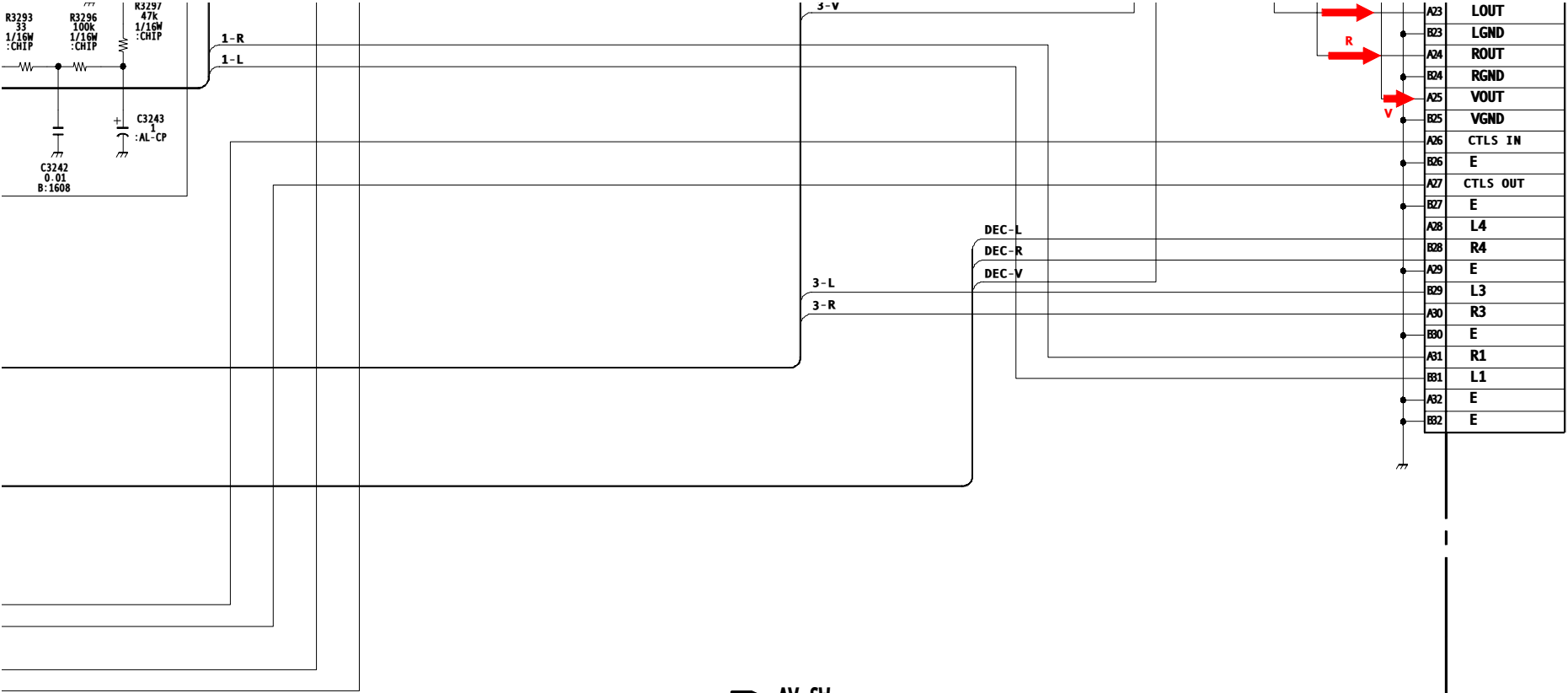
TO D BOARD  
CN6503

TO D BOARD  
CN6505  
CN6006  
8P  
:B-TO-B

[illegible]







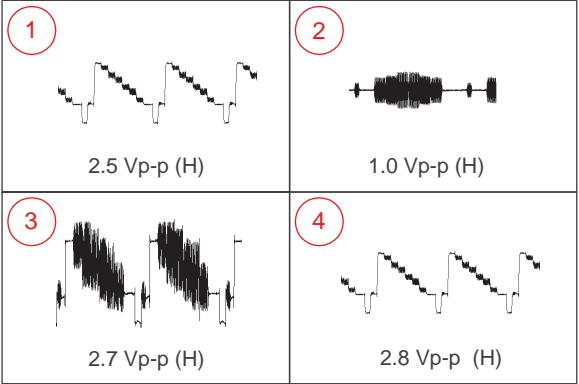
B  
AV-SW  
MID XA  
YUV SW  
MID-UCOM  
COMPONENT-J/F  
YCT-MAIN/YCT-SUB

B (1 / 4)

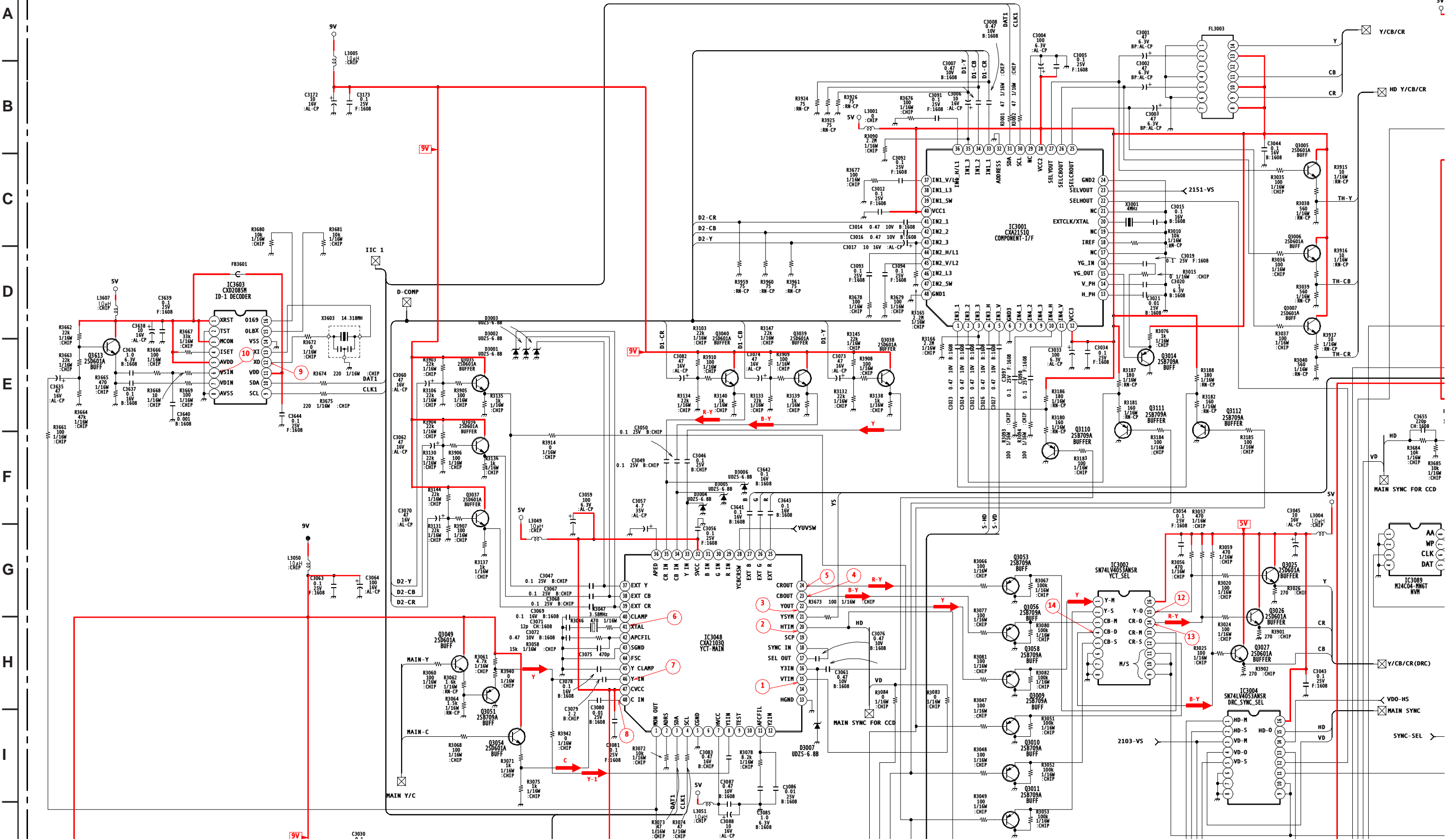
9-965-898-01<DX-1A> B(1/4)

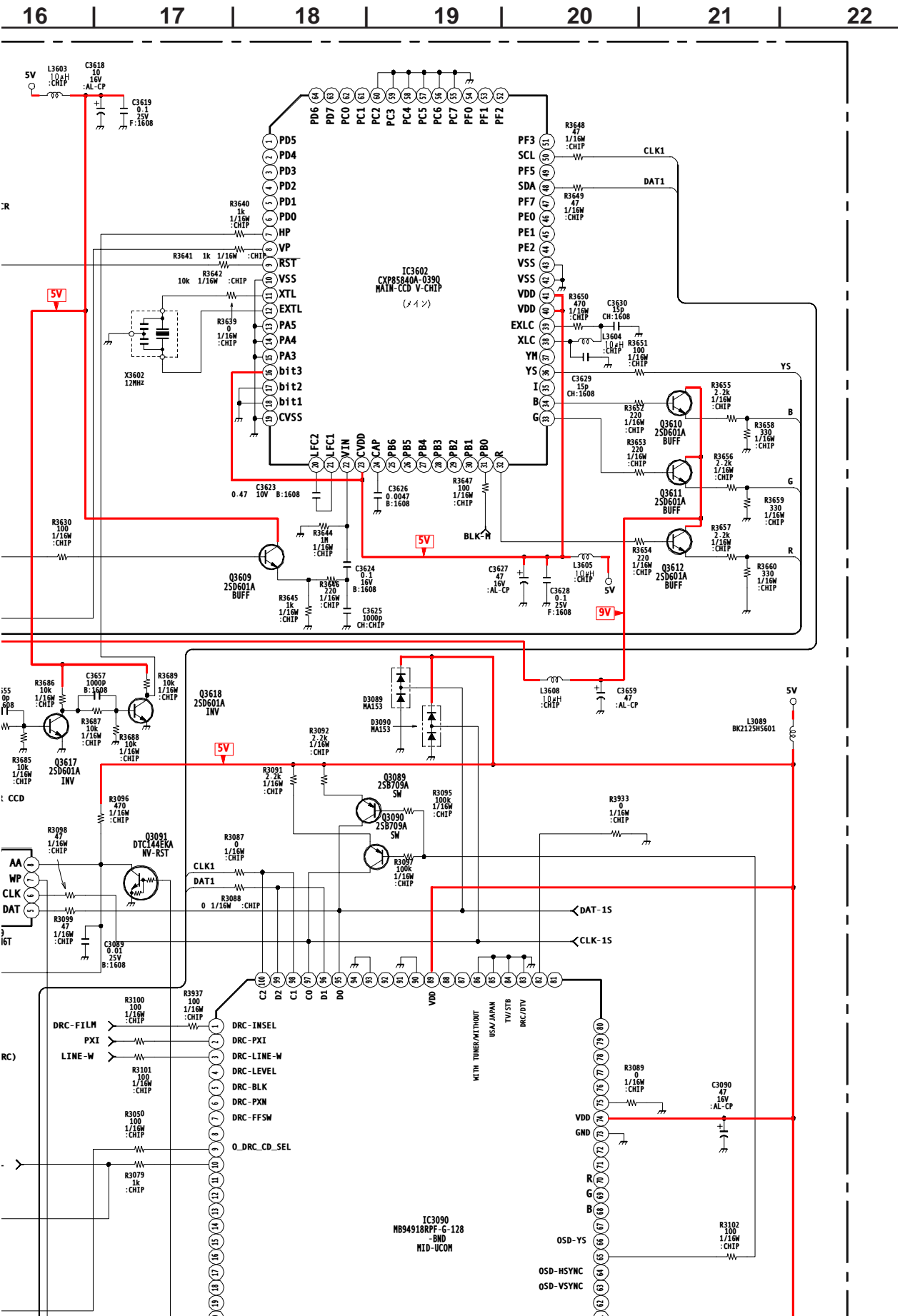
CN3204  
11P  
MHT  
:S-MICRO  
TO HB BOARD  
CN4503

B BOARD WAVEFORMS (1 OF 4)

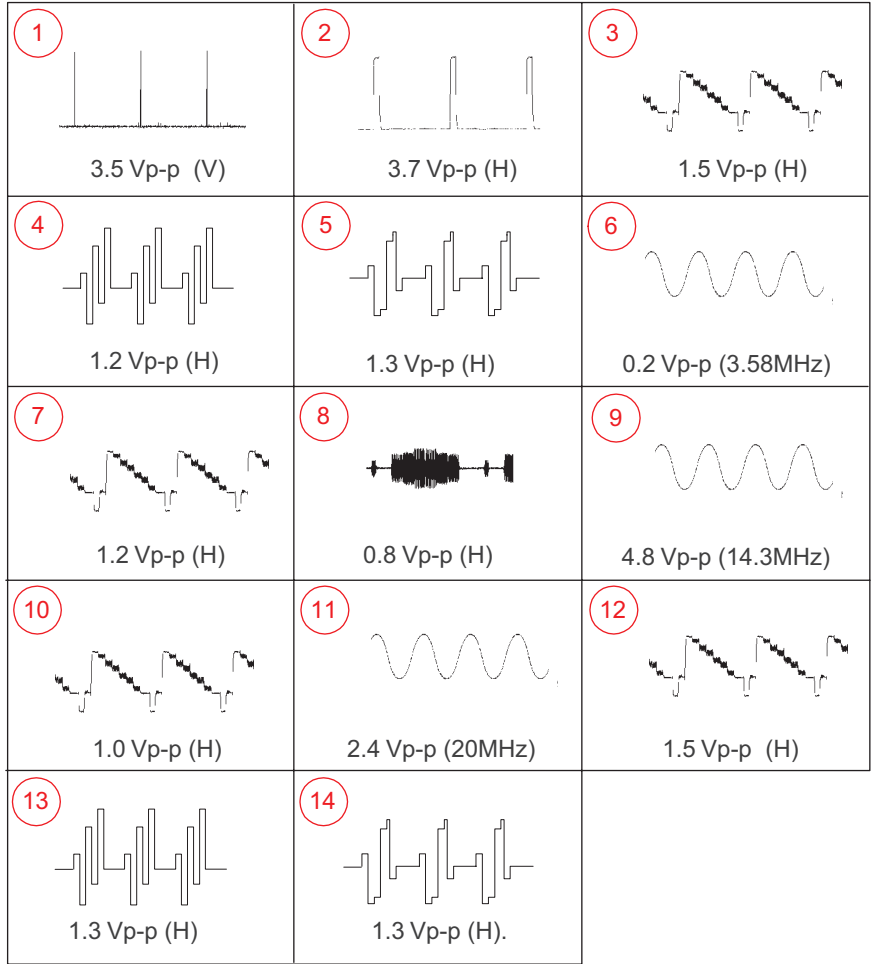


A horizontal timeline with 16 numbered segments from 1 to 16. The segments are represented by a horizontal line with vertical tick marks at each integer value. The numbers 1 through 16 are placed above the corresponding tick marks.





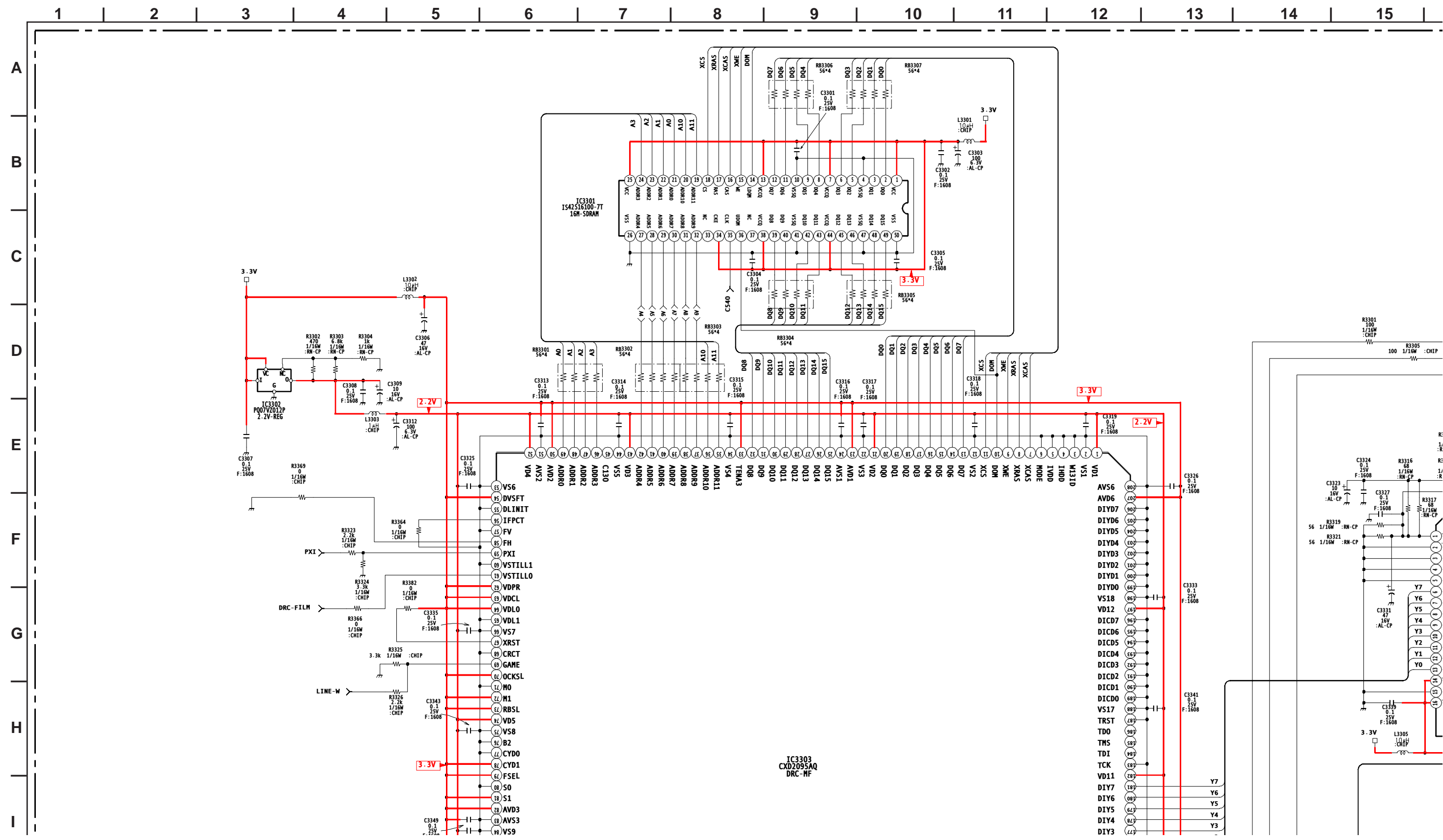
B BOARD WAVEFORMS (2 OF 4)

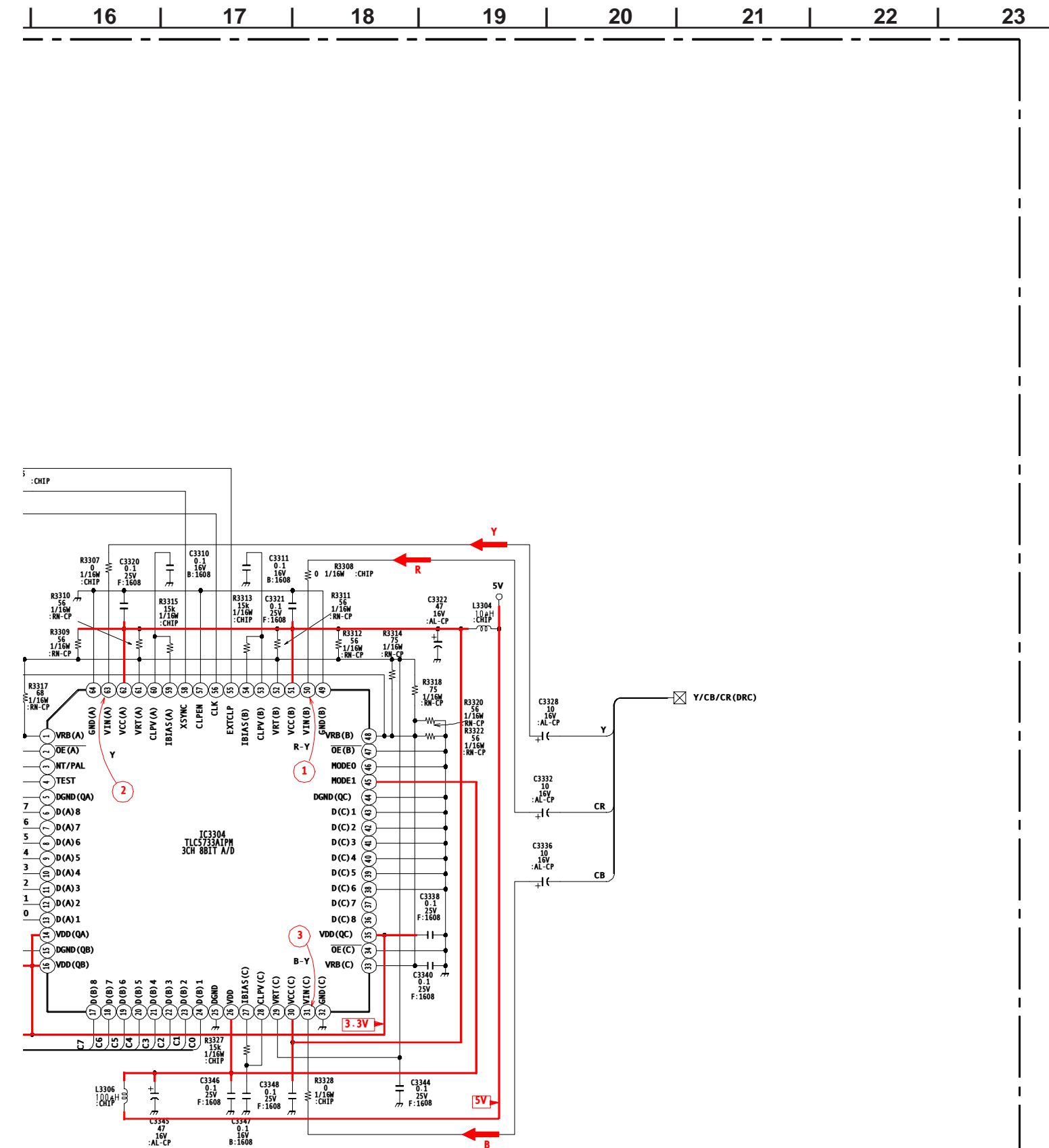




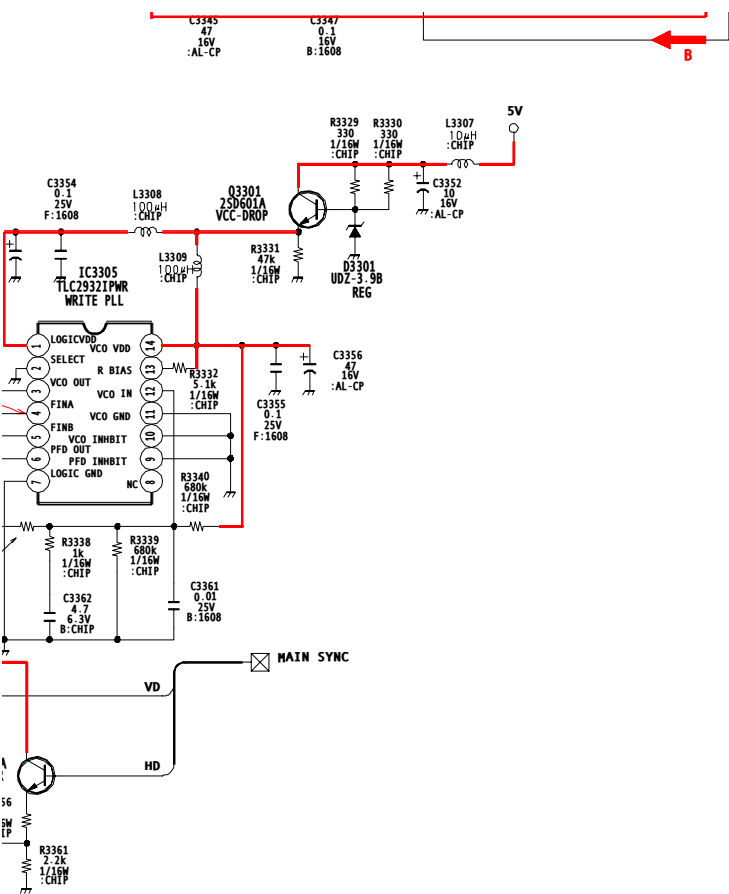


B BOARD SCHEMATIC DIAGRAM (3 OF 4)



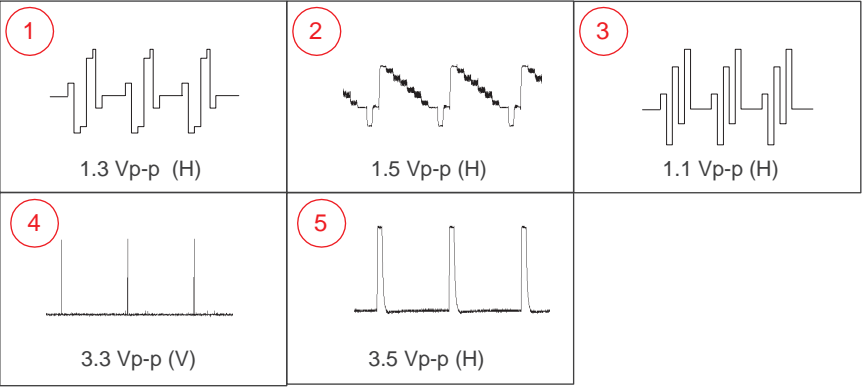




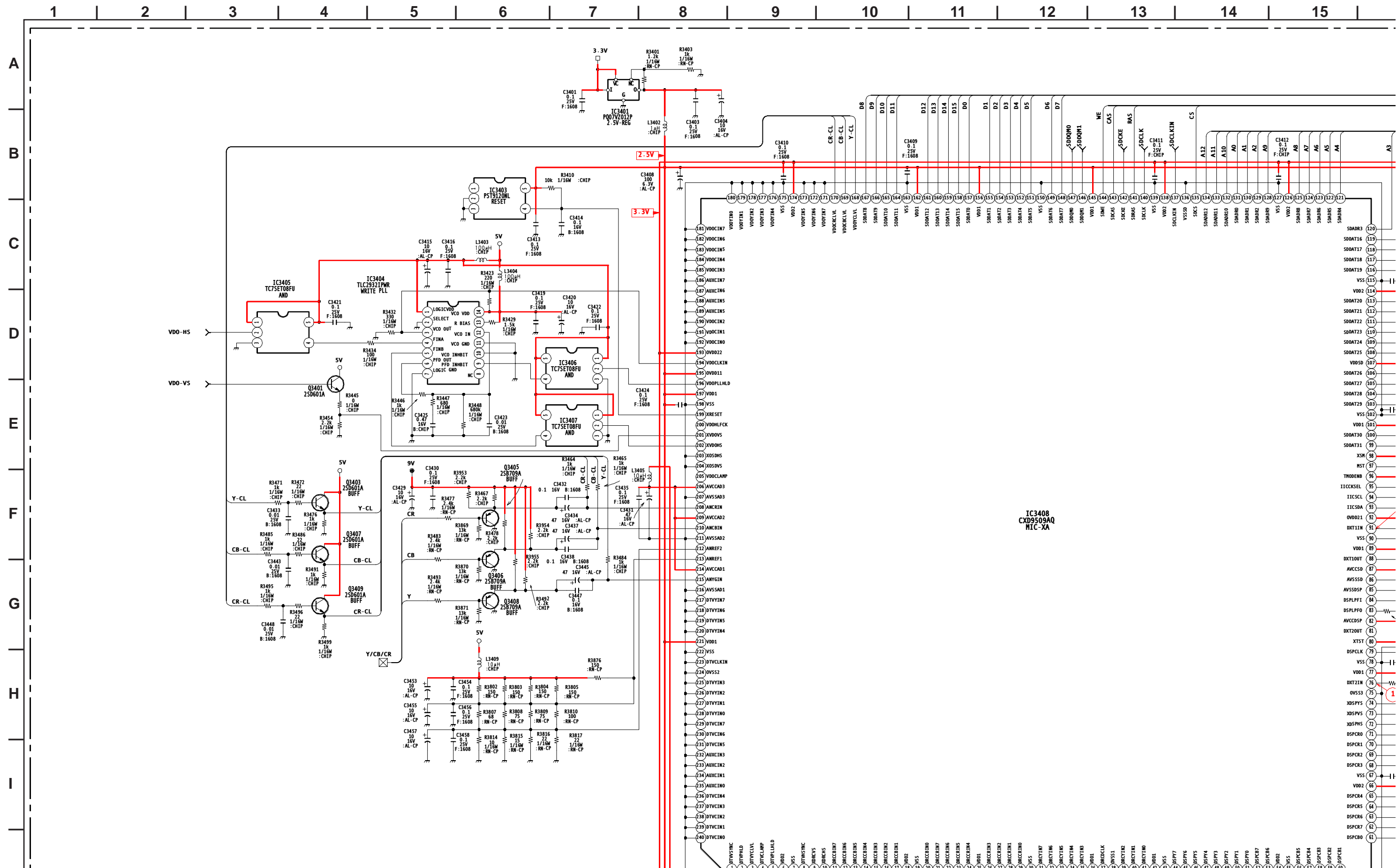


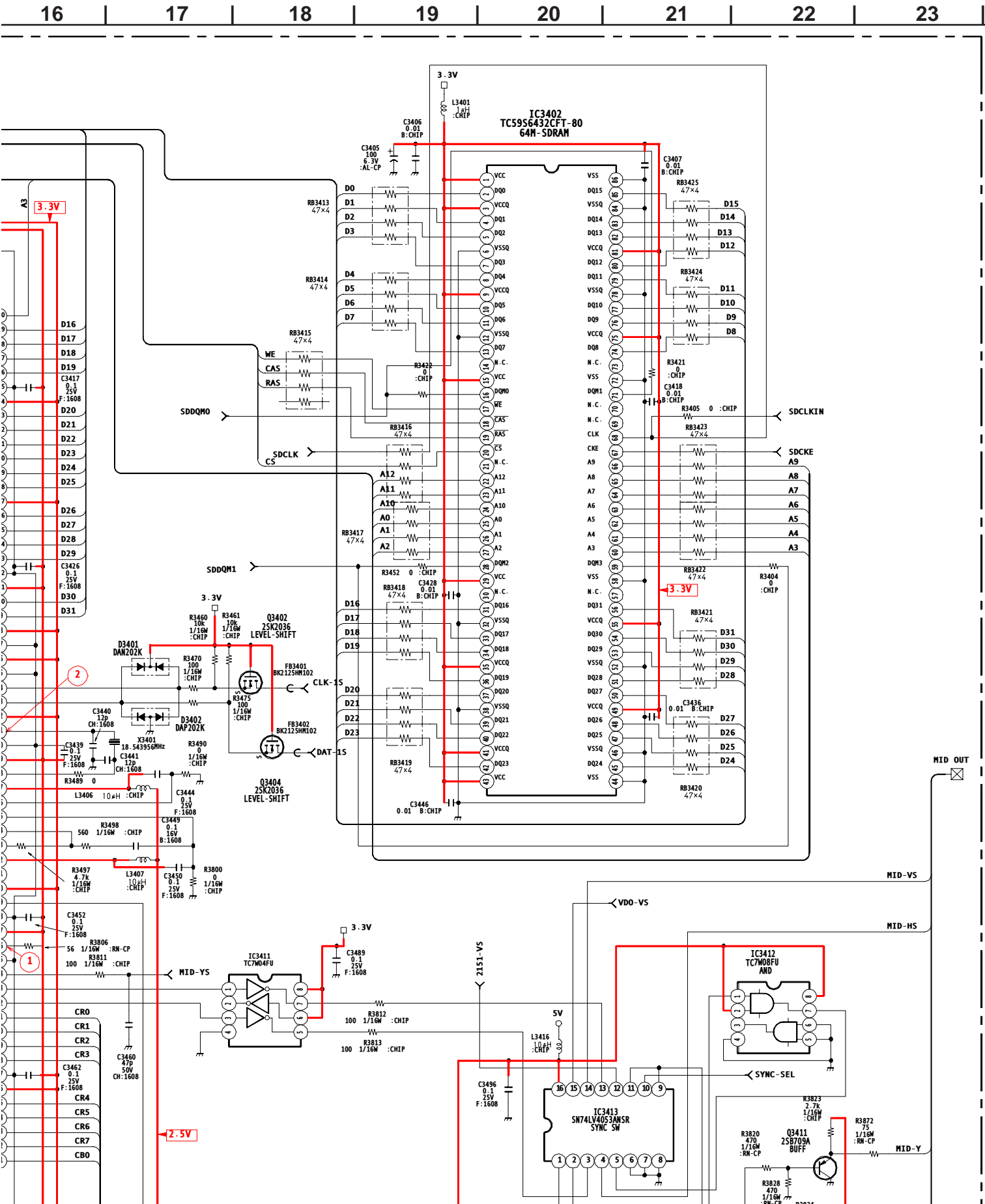
B (3/4)

B BOARD WAVEFORMS (3 OF 4)

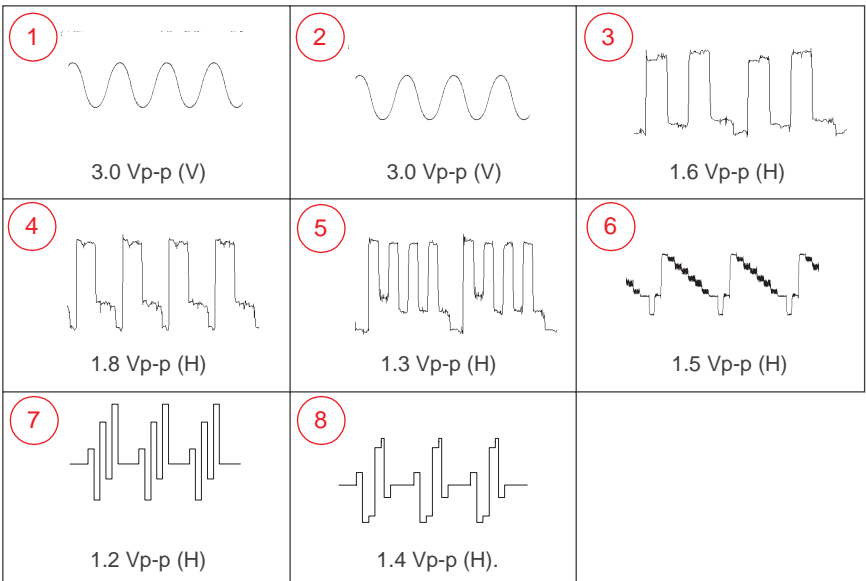


1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |





B BOARD WAVEFORMS (4 OF 4)



J

K

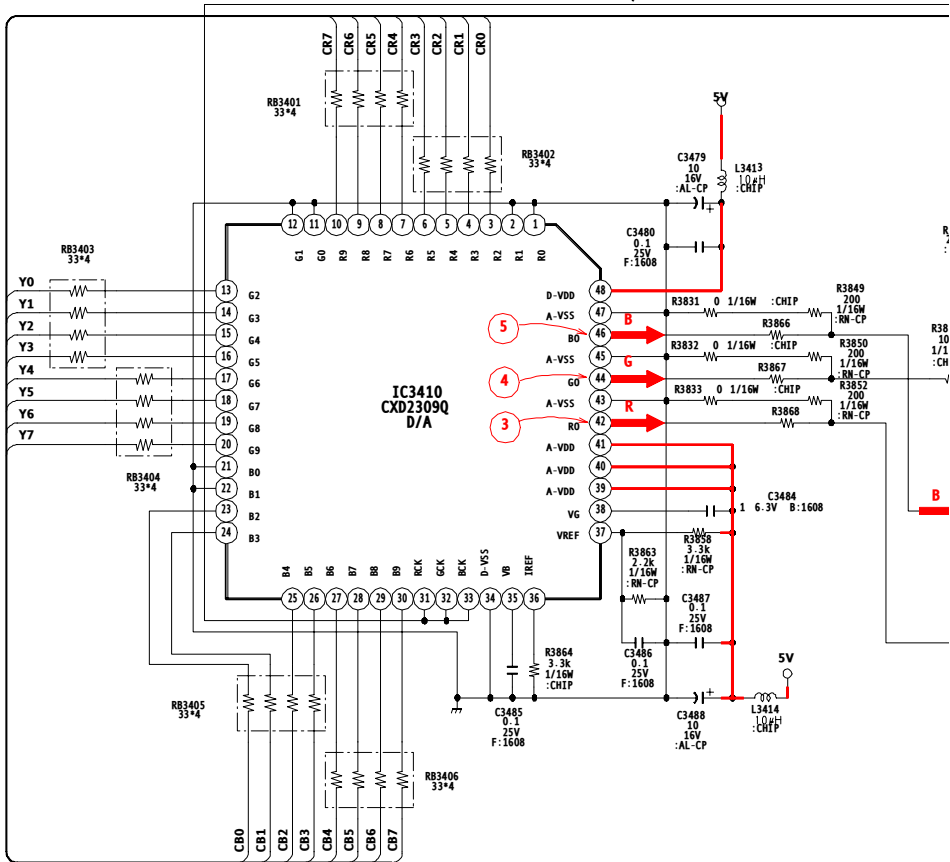
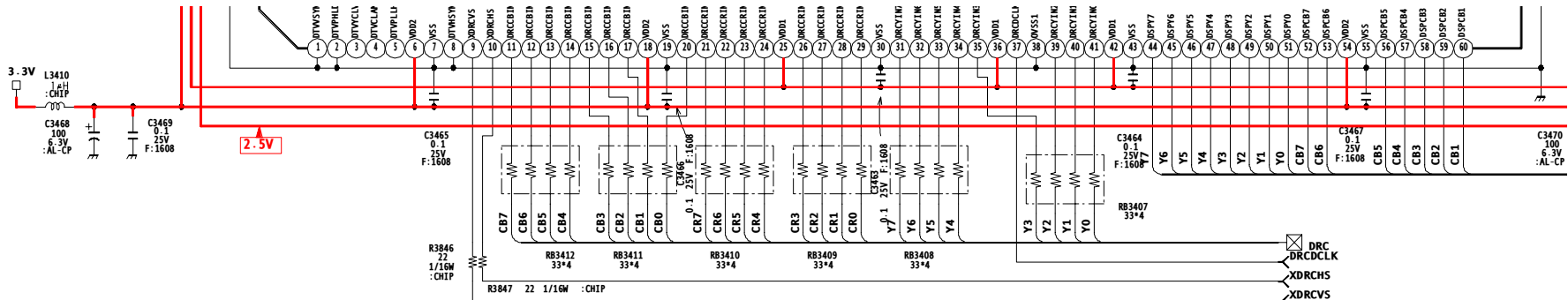
L

M

N

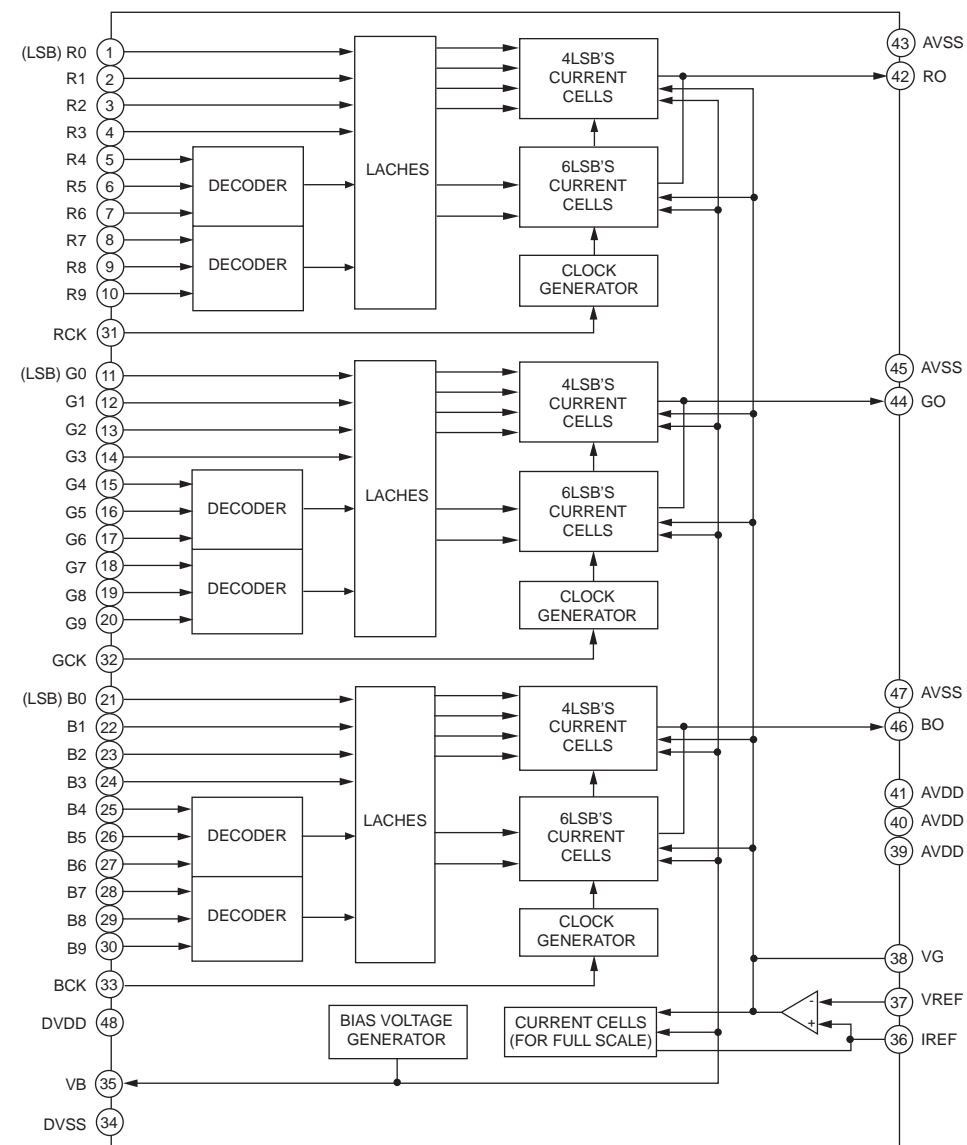
O

P

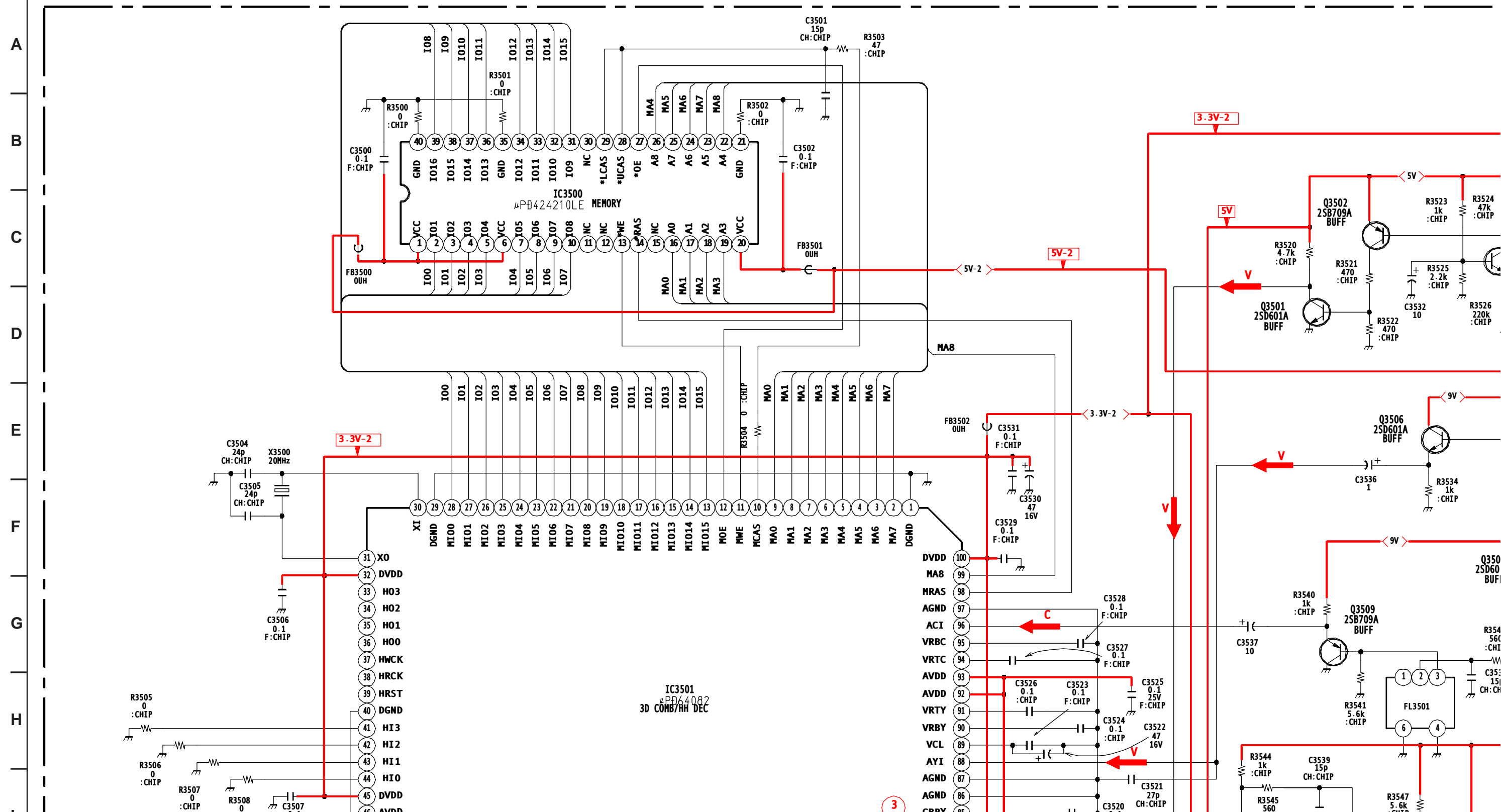


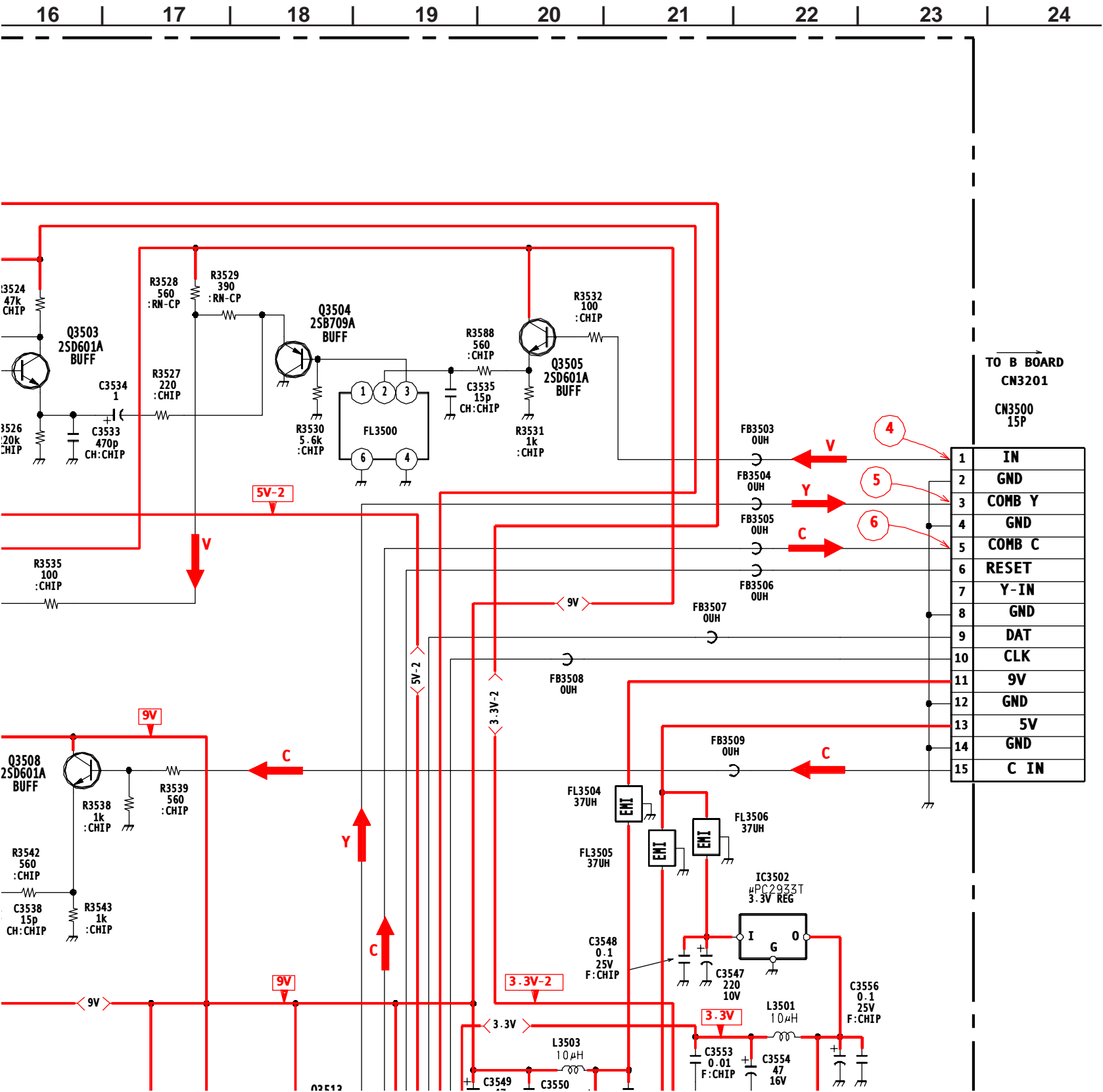


**B BOARD: IC2309Q**

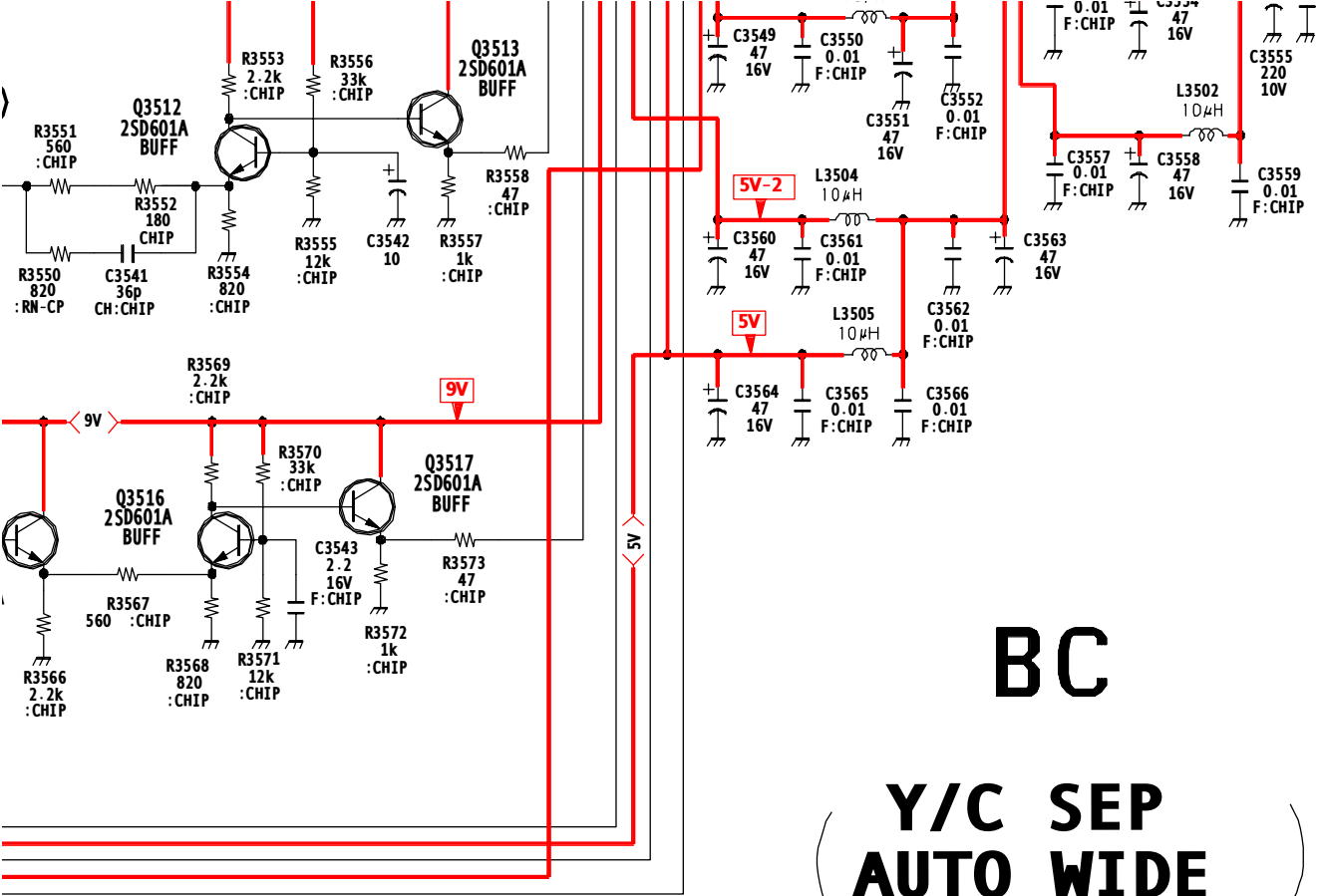


A horizontal number line with tick marks at every integer from 1 to 15. The numbers are labeled above the line.



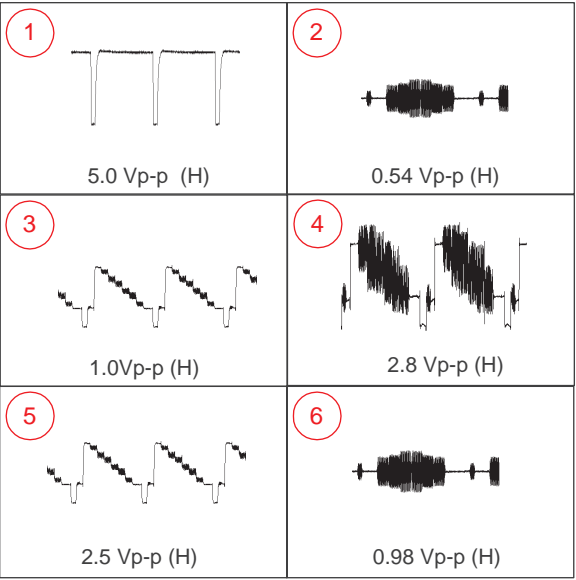


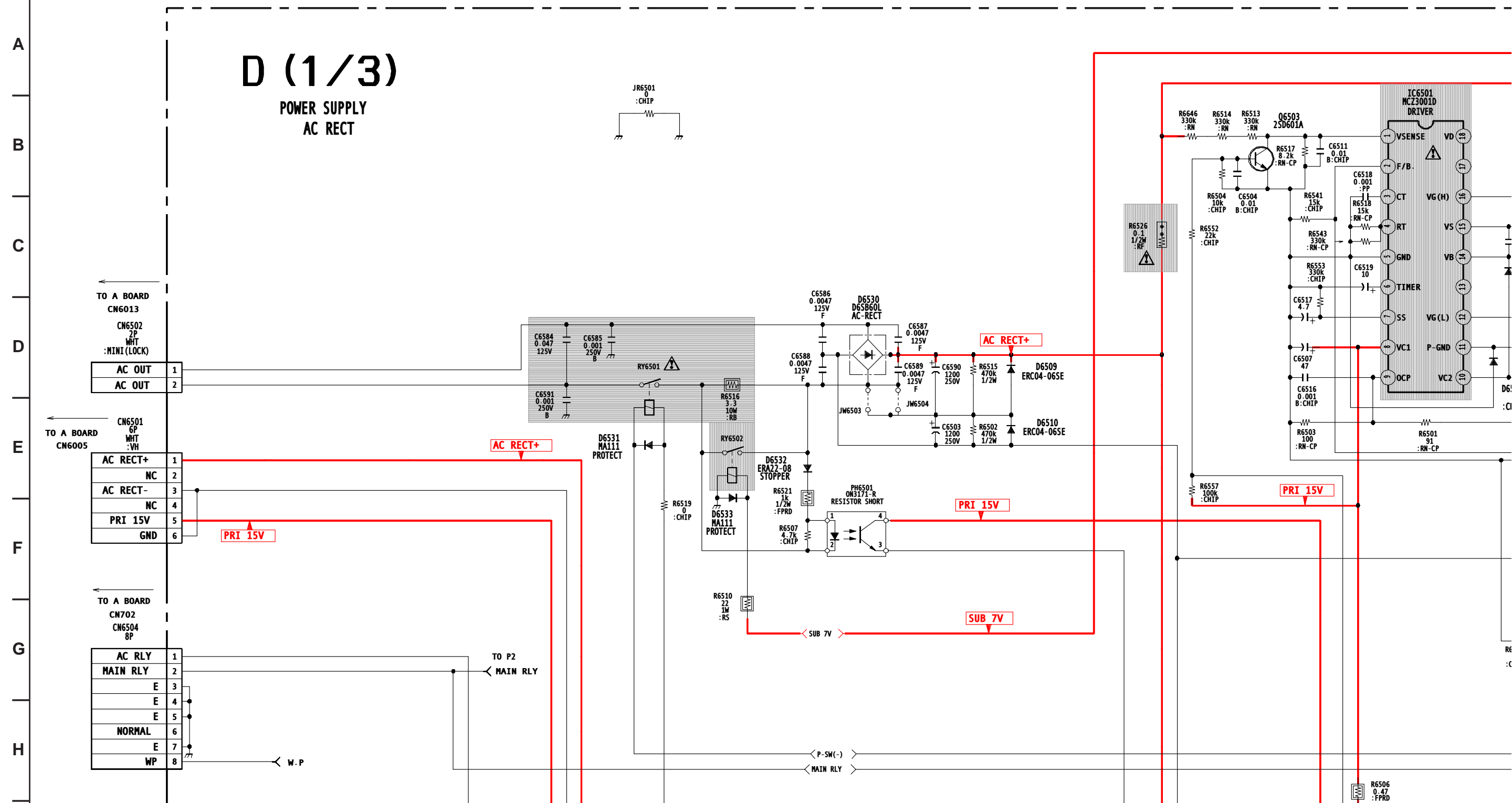


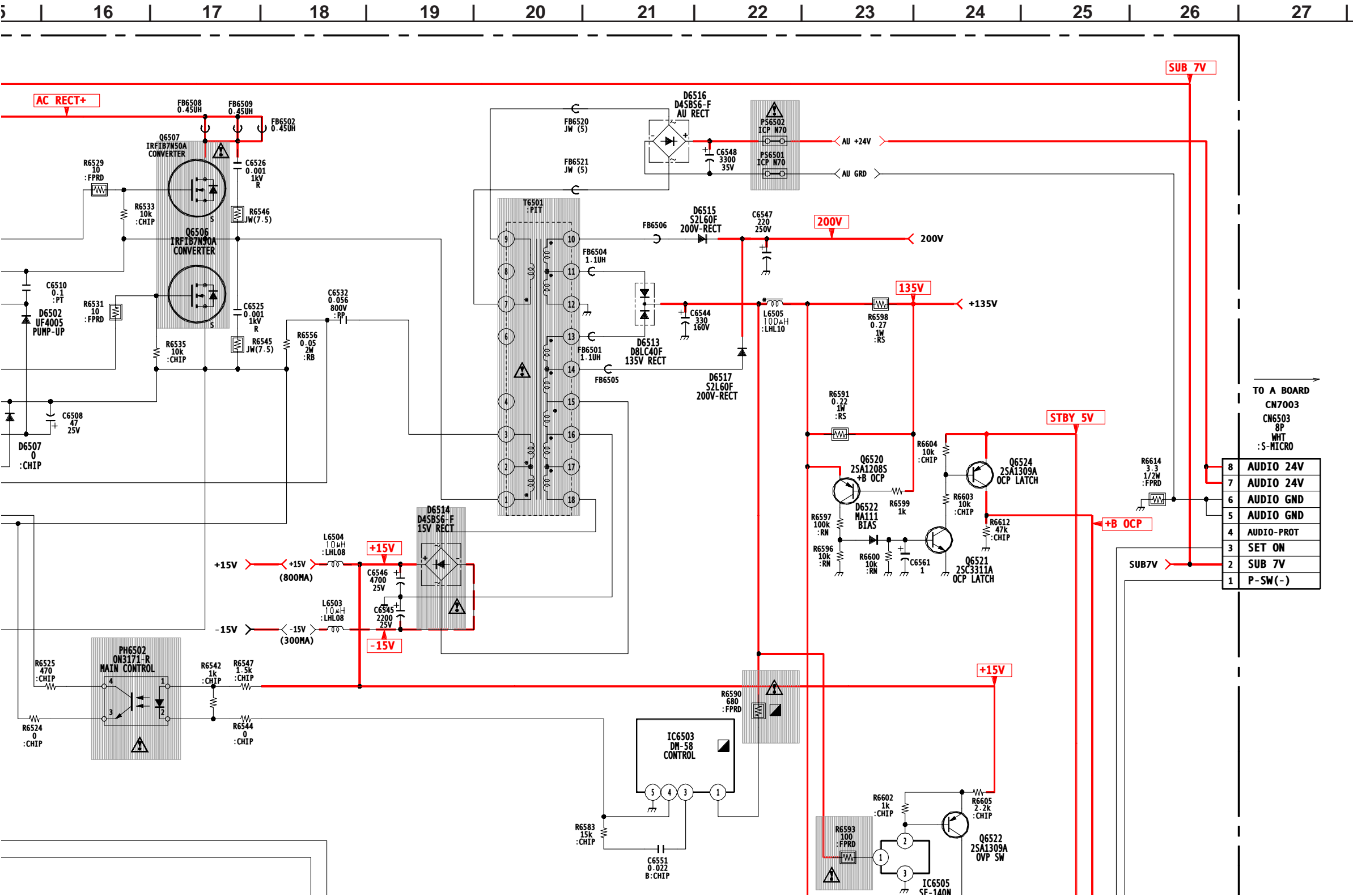


9-965-898-01<DX-1A>BC

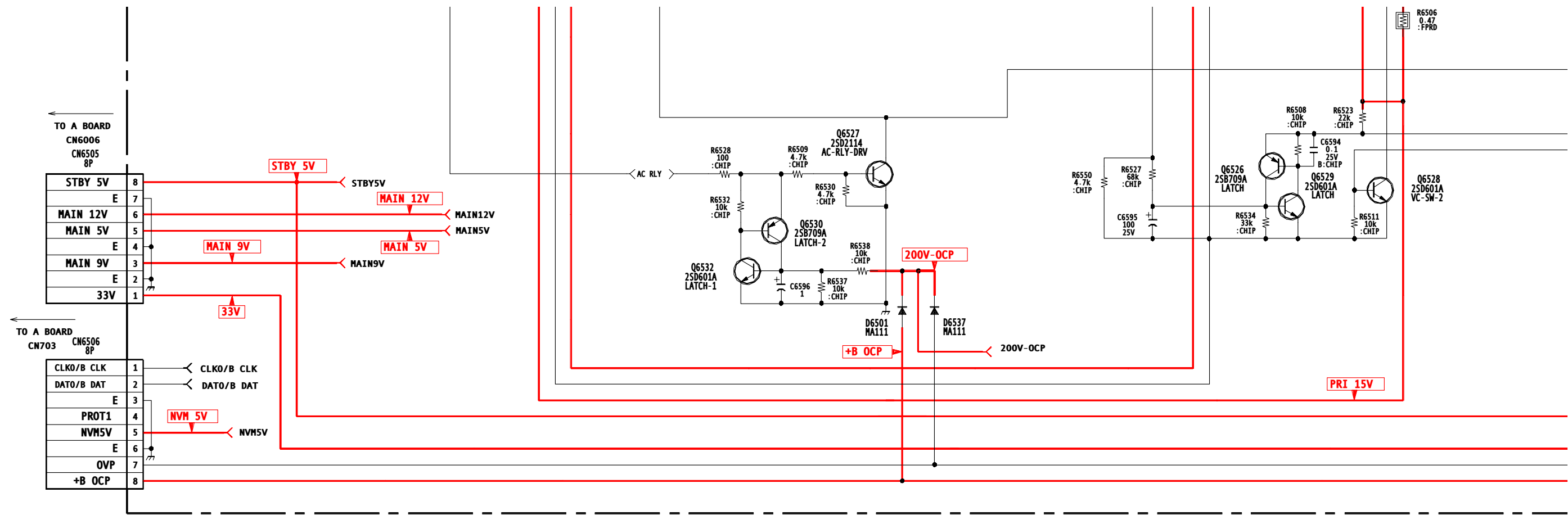
BC BOARD WAVEFORMS

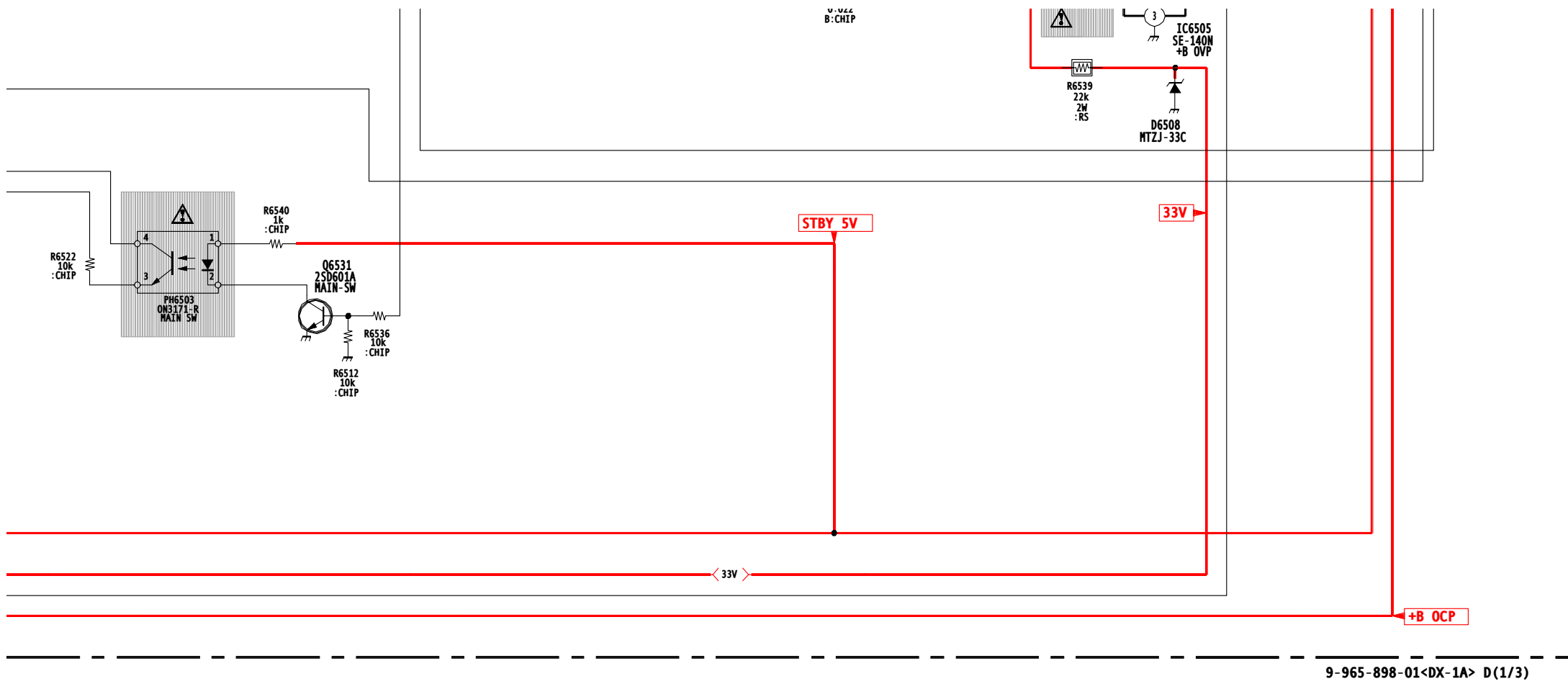




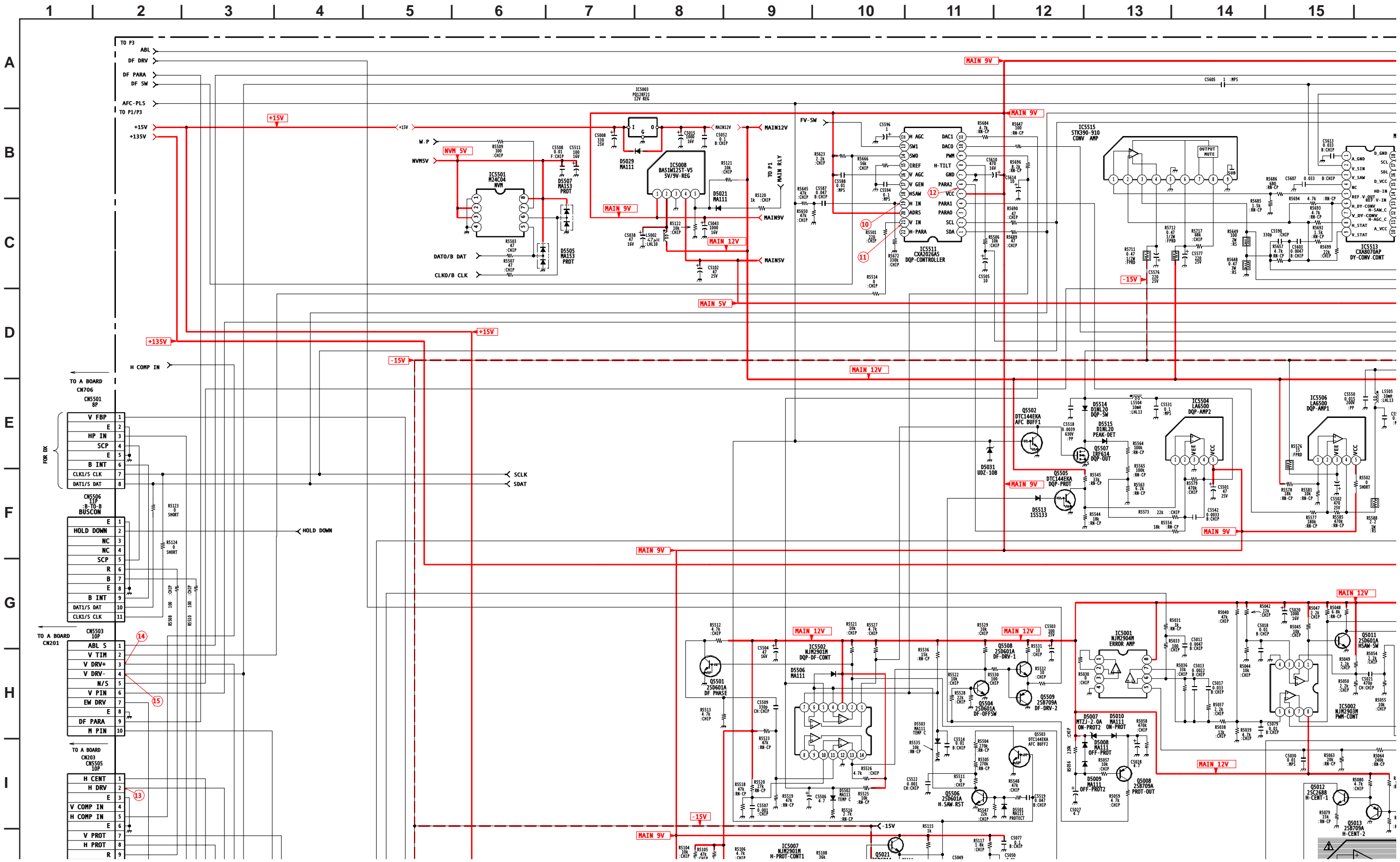


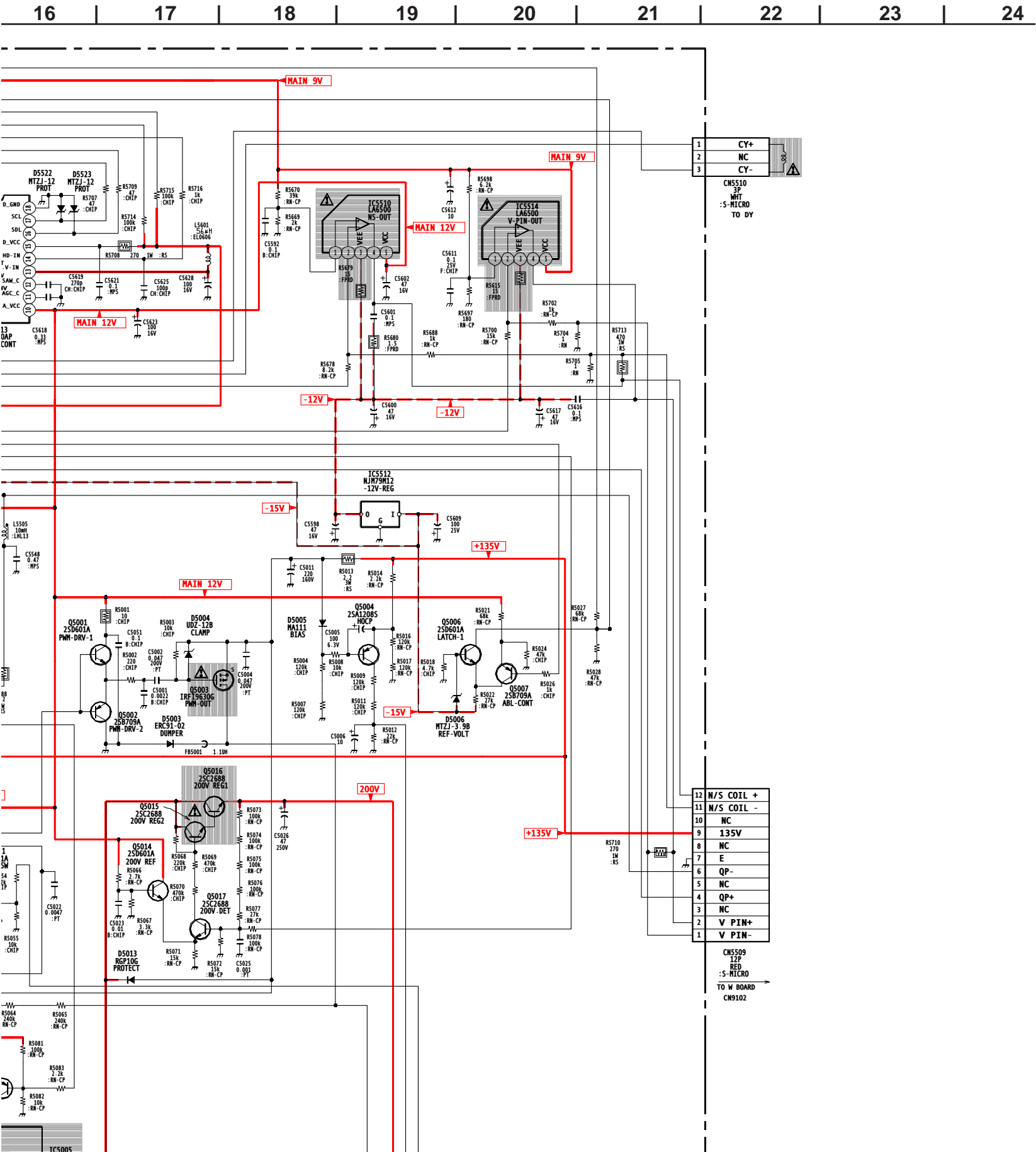
I  
J  
K  
L  
M



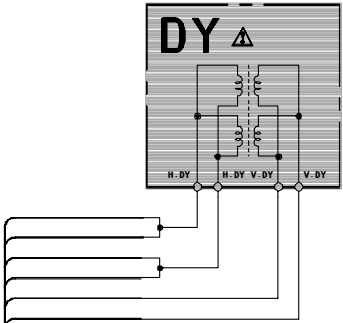


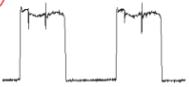
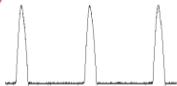
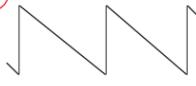
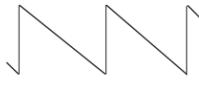
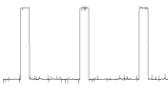
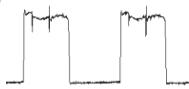
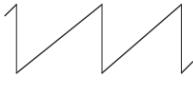
D BOARD SCHEMATIC DIAGRAM (2 OF 3)



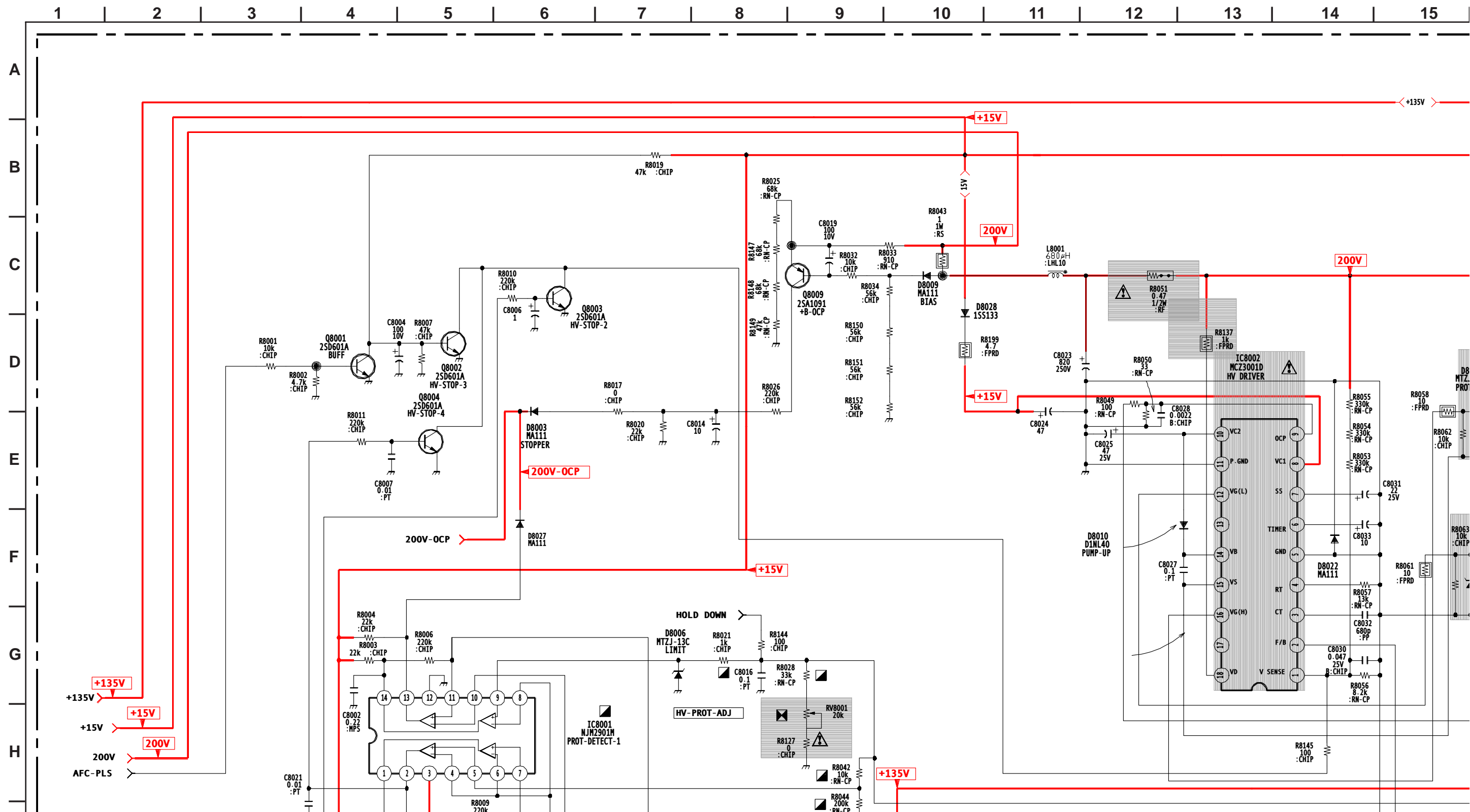




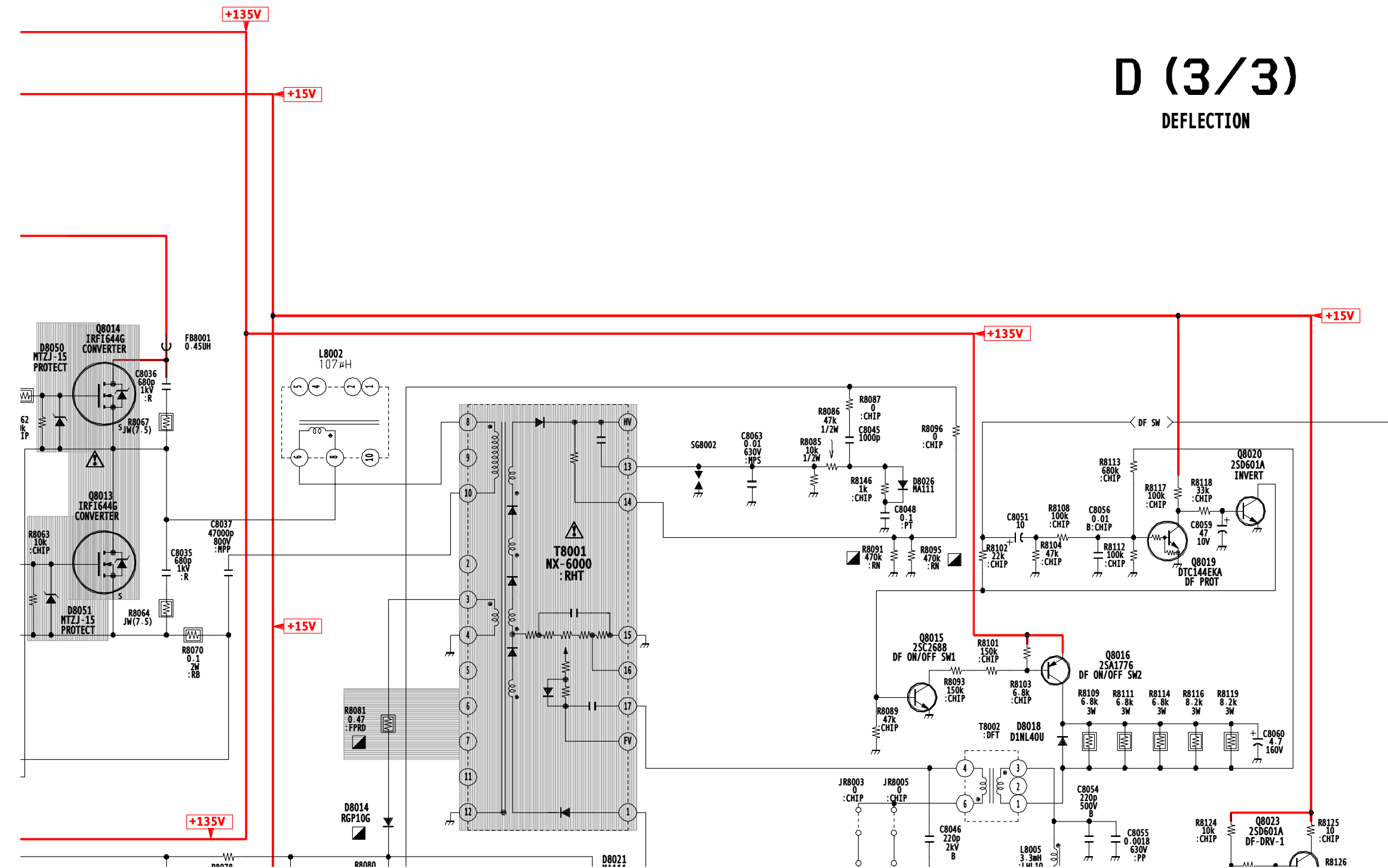


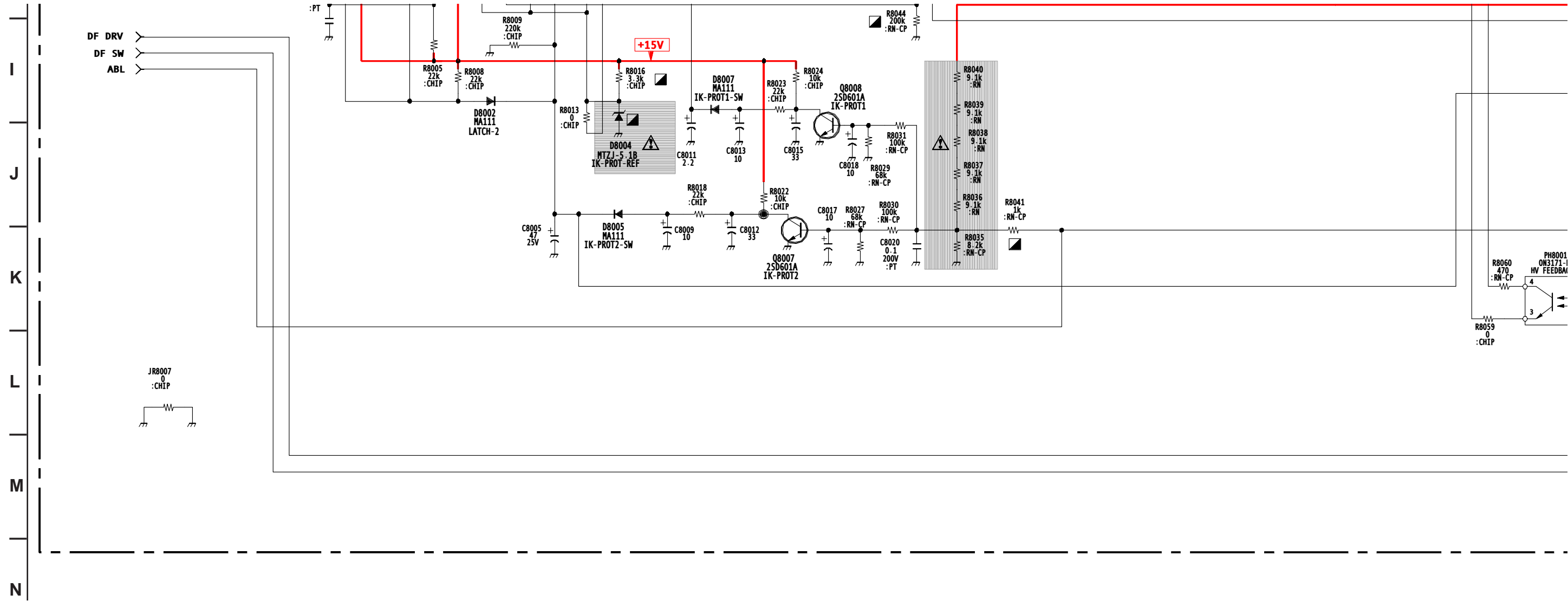
<p>1</p>  <p>12 Vp-p (H)</p>	<p>2</p>  <p>152.4 Vp-p (H)</p>	<p>3</p>  <p>12.8Vp-p (H)</p>
<p>4</p>  <p>1.0 KVp-p (H)</p>	<p>5</p>  <p>8.0 Vp-p (V)</p>	<p>6</p>  <p>60.2 Vp-p (V)</p>
<p>7</p>  <p>7.3 Vp-p (V)</p>	<p>8</p>  <p>1.9 Vp-p (V)</p>	<p>9</p>  <p>94.6 Vp-p (H)</p>
<p>10</p>  <p>1.3 Vp-p (H)</p>	<p>11</p>  <p>5.1 Vp-p (V)</p>	<p>12</p>  <p>2.0 Vp-p (H)</p>
<p>13</p>  <p>2.9 Vp-p (H)</p>	<p>14</p>  <p>1.7 Vp-p (V).</p>	<p>15</p>  <p>1.5 Vp-p (V)</p>

D BOARD SCHEMATIC DIAGRAM (3 OF 3)



## DEFLECTION







## PRINTING THE SERVICE MANUAL

The PDF of this service manual is not designed to be printed from cover to cover. The pages vary in size, and must therefore be printed in sections based on page dimensions.

### NON-SCHEMATIC PAGES

Data that does NOT INCLUDE schematic diagrams are formatted to 8.5 x 11 inches and can be printed on standard letter-size and/or A4-sized paper.

### SCHEMATIC DIAGRAMS

The schematic diagram pages are provided in two ways, full size and tiled. The full-sized schematic diagrams are formatted on paper sizes between 8.5" x 11" and 18" x 30" depending upon each individual diagram size. Those diagrams that are LARGER than 11" x 17" in full-size mode have been tiled for your convenience and can be printed on standard 11" x 17" (tabloid-size) paper, and reassembled.

#### TO PRINT FULL SIZE SCHEMATIC DIAGRAMS

---

If you have access to a large paper plotter or printer capable of outputting the full-sized diagrams, output as follows:


- 1) Note the page size(s) of the schematics you want to output as indicated in the middle window at the bottom of the viewing screen.
- 2) Go to the File menu and select Print Set-up. Choose the printer name and driver for your large format printer. Confirm that the printer settings are set to output the indicated page size or larger.
- 3) Close the Print Set Up screen and return to the File menu. Select "Print..." Input the page number of the schematic(s) you want to print in the print range window. Choose OK.

#### TO PRINT TILED VERSION OF SCHEMATICS

---

Schematic pages that are larger than 11" x 17" full-size are provided in a 11" x 17" printable tiled format near the end of the document. These can be printed to tabloid-sized paper and assembled to full-size for easy viewing.



If you have access to a printer capable of outputting the tabloid size (11" x 17") paper, then output the tiled version of the diagram as follows:


- 1) Note the page number(s) of the schematics you want to output as indicated in the middle window at the bottom of the viewing screen.
- 2) Go to the File menu and select Print Set-up. Choose the printer name and driver for your printer. Confirm that the plotter settings are set to output 11" x 17", or tabloid size paper in landscape (  ) mode.
- 3) Close the Print Set Up screen and return to the File menu. Select "Print..." Input the page number of the schematic(s) you want to print in the print range window. Choose OK.

#### TO PRINT SPECIFIC SECTIONS OF A SCHEMATIC

---

To print just a particular section of a PDF, rather than a full page, access the Graphics Select tool in the Acrobat Reader tool bar.

- 1) To view the Graphics Select Tool, press the mouse button over the Text Select Tool which looks like: .  
This tool will expand to reveal to additional tools.  
Choose the Graphics Select tool by placing the cursor over the button on of the far right that looks like: .
- 2) After selecting the Graphics Select Tool, place your cursor in the document window and the cursor will change to a plus (+) symbol. Click and drag the cursor over the area you want to print. When you release the mouse button, a marquee (or dotted lined box) will be displayed outlining the area you selected.
- 3) With the marquee in place, go to the file menu and select the "Print..." option. When the print window appears, choose the option under the section called "Print Range" which says "Selected Graphic".

Select OK and the output will print only the area that you outlined with the marquee. 

(continued >)

## ON-SCREEN SEARCH OPTION

All of the text within the service manual PDF is content searchable. This means that you can enter any text, word, phrase or reference number that appears in the manual, and the PDF software will search, find and move the cursor to the location where you requested text first appears. This feature can be particularly useful in locating components on a specific schematic or printed wire circuit board (PWB) diagrams.

Follow these steps to effectively locate a component on a schematic diagram:

- 1) Locate the schematic you want to search by clicking on the corresponding bookmark on the left side of the screen. The view on the right of the screen will then jump to the desired schematic page.
- 2) Magnify the diagram to at least 400% before conducting a component search. This will enable you to easily view the reference number when it is highlighted on screen. To do this, click on the magnifying glass button on the tool bar at the top of the screen. Move the cursor over the diagram and RIGHT click you mouse. Select the 400% magnification option on the pop-up menu. Click on the button with the icon of the open hand to deactivate the magnification tool
- 3) Search the diagram (or the entire manual) by clicking on the binocular button tool at the top of the screen. The "Find" window will appear and allow you to type in your desired text. Type in a reference designator, such as R502, and click on the "Find" button. If the component is not on the diagram, but is listed anywhere else in the manual, the cursor will jump to the first location the text is found in the file. To find another instance of that same text, click on the binocular button again and select "Find Again."

# SERVICE MANUAL

# DX-1A CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
<b>KV-32HS20</b>	RM-Y183	US	SCC-S47F-A
<b>KV-36HS20</b>	RM-Y183	US	SCC-S47E-A
<b>KV-36HS20H</b>	RM-Y183	HAWAII	SCC-S54C-A
<b>KV-32XBR450</b>	RM-Y184	US	SCC-S47D-A
<b>KV-32XBR450</b>	RM-Y184	CND	SCC-S48D-A
<b>KV-36XBR450</b>	RM-Y184	US	SCC-S47C-A
<b>KV-36XBR450</b>	RM-Y184	CND	SCC-S48C-A
<b>KV-36XBR450H</b>	RM-Y184	HAWAII	SCC-S54B-A

## CORRECTION - 1

SUBJECT: DELETION OF P/N X-4038-979-1;  
BEZEL ASSY.

Correct the service manual as shown.  
File this Correction with the service manual.


 : Corrected Item

Section 6: Exploded View (Page 93)

6-2. Picture Tube (KV-32HS20/32XBR450 ONLY)

### INCORRECT

### CORRECT

REF. NO.	PART NO.	DESCRIPTION	[Assembly Includes]	REF. NO.	PART NO.	DESCRIPTION
30a	X-4038-979-1	BEZEL ASSY (KV-32HS20 ONLY)	34-39		DELETE	

TRINITRON® COLOR TELEVISION

# SONY®

## HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

# SERVICE MANUAL

# DX-1A CHASSIS

<u>MODEL NAME</u>	<u>REMOTE COMMANDER</u>	<u>DESTINATION</u>	<u>CHASSIS NO.</u>
<b>KV-32HS20</b>	RM-Y183	US	SCC-S47F-A
<b>KV-36HS20</b>	RM-Y183	US	SCC-S47E-A
<b>KV-36HS20H</b>	RM-Y183	HAWAII	SCC-S54C-A
<b>KV-32XBR450</b>	RM-Y184	US	SCC-S47D-A
<b>KV-32XBR450</b>	RM-Y184	CND	SCC-S48D-A
<b>KV-36XBR450</b>	RM-Y184	US	SCC-S47C-A
<b>KV-36XBR450</b>	RM-Y184	CND	SCC-S48C-A
<b>KV-36XBR450H</b>	RM-Y184	HAWAII	SCC-S54B-A

**ORIGINAL MANUAL ISSUE DATE: 3/2001**

**ALL REVISIONS AND UPDATES TO THE ORIGINAL MANUAL ARE APPENDED TO THE END OF THE PDF FILE.**

<u>REVISION DATE</u>	<u>REVISION TYPE</u>	<u>SUBJECT</u>
3/2001	No revisions or updates are applicable at this time.	
10/2001	CORRECTION-1	Deletion of P/N X-4038-979-1